FREIGHT TRAFFIC

SHIPPERS ASSESS CAR-LOCATION PROCEDURES

JULY 29, 1968

RAILWAY AGE

THE TRANSPORTATION WEEKLY

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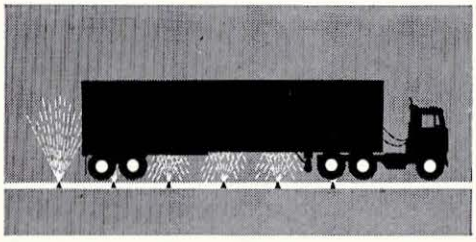
- FOR THE CUSTOMER
- FOR THE RAILROAD

BY EVERY TEST IN THE BOOK

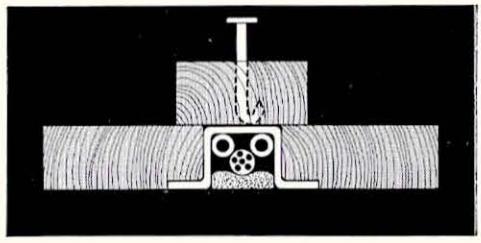
Fruehauf's Z-Van has the strongest, safest, most trouble-free standard floor available.

Floor Fastener Test



Engineers parked new trailers over ordinary lawn sprinklers. Within a few hours, expanding wet floor boards caused the ¼" floor screws in conventionally-built trailers to tear loose or shear off. Fruehauf's Z-Van floor came through the test unharmed!

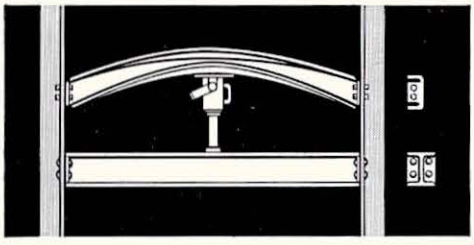
Wiring and Air Hose Safety Test



Z-Van air and electrical lines are housed in a protective, galvanized, hat-shaped steel channel.* Ten husky men with sledge hammers tried to nail a 2 x 4, used for shoring loads, to the channel with spikes. They couldn't even dent it!

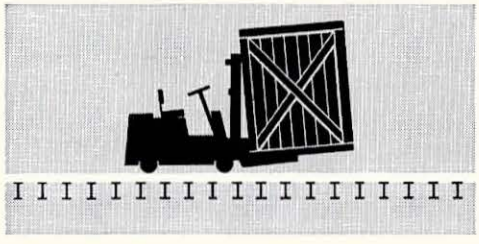
**Patent applied for*

Crossmember Test



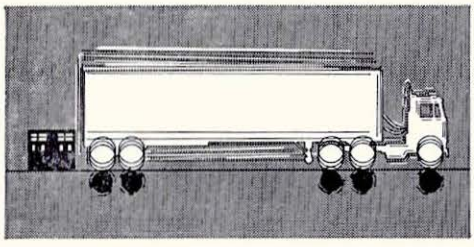
Crossmembers from leading Trailer makes were mounted between steel rails, one by one, alongside a Z-Van I-beam. A jack, placed between each pair, applied increasing pressure. The Z-Van crossmember held firm while its competitors' collapsed.

Concentrated Load Test



Computers *and* field tests have been used to evaluate trailer floors. The Z-Van's 1⅜" floor, with only 12¾" between broad-flanged I-beam crossmembers, proves best—with a 17,000 lbs. load rating and one third added resistance to puncture and breakthrough.

Durability Test



Fruehauf's Z-Van has been subjected to tortuous dynamometer and rack tests which can compress 5 years of severe operation into only 120 hours. In all such tests, the Z-Van has been proved a winner from king pin to tail lights.

FRUEHAUF Z-VAN

Tests performed over the last two years on the Z-Van are being verified in some of the nation's most severe piggyback operations. For complete information, contact your Fruehauf man or write **Fruehauf Division, Fruehauf Corporation, 10942 Harper Avenue, Detroit, Michigan 48232.**

Circle 1 on coupon page 55

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A
Research — just another name for old fashioned homework — led FreightMaster to originate the end-of-car hydraulic cushioning concept over ten years ago. Put us on the right track, you might say.
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RAILWAY AGE

July 29, 1968 • Vol. 165, No. 4

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. . . AND COMING NEXT WEEK

Railway Age will present a comprehensive report on the new cars proposed for Illinois Central's commuter service. The cars, now on the drawing board, will be the nation's first electric-powered double deckers. Also, an account of "Tempo," characterized by the Canadian National as an intercity commuter service.

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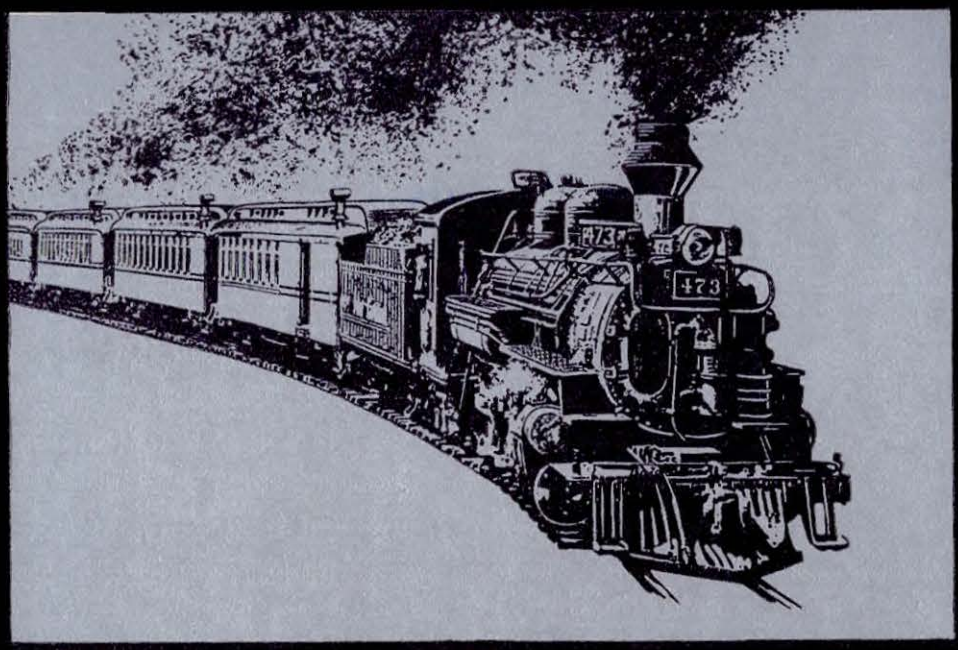
Road to Riches



"Silver in the San Juans," the whispers said. And frontier fortune hunters who heard them rushed to exploit southwest Colorado's rich deposits. Right behind them was the railroad, carving a roadbed along the cliffs of the Animas Gorge, a twisting, turning path that only 3-foot narrow gauge could negotiate. Working through the howling blizzards of high-country winter, construction crews fought through the 45 miles from Durango to boom town Silverton in just nine months and five days. They arrived July 8, 1882, after a climb of almost 3000 feet.

The Silverton branch of the Denver & Rio Grande Western Railroad offered the best route into the rugged terrain of the San Juan mountains. So the bulk of the region's ore, over $300 million worth, was carried out on the Silverton branch of the D&RGW.

In 1890, the D&RGW completed a standard gauge line from Denver to Salt Lake City, and its frontier lines were reduced to mere freight operations. When the ore ran out, so did the railroads. The last to offer passenger service was the D&RGW's Silverton branch, and perhaps because it was the last, it began to come alive. Railroad fans and vacationers came to steam along the cliffs, peer down on the roaring Animas River, snap a sparkling waterfall splashing down between towering evergreens. They came to relive the early days of the silver miners, to visit the ghost towns, or to revel in the unspoiled wilderness. Or they came to see an operating monument to unprecedented railroad engineering, to hear the chug of a 2-8-2 on a long grade and the rattle of wooden coaches.

The Silverton branch today is a registered historic landmark. It is factual proof of the ability of America's railroads and their suppliers to take people and things to places no other form of transportation can reach economically. To places rich in resources, or in heritage. And to take them for a reasonable price.

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Denver, Colorado 80217

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SHORT AND SIGNIFICANT

IC launches fast Memphis TOFC service

Illinois Central last week started a new Chicago - Memphis piggyback schedule designed to give shippers "precision service" overnight every 24 hours. Cutoff time at both points is 4:30 p.m. Arrival time is 7 a.m. "These are main line runs. When these piggyback trains pull away from their terminals they will highball all the way—with no pickups or setouts en route," says L. A. Schellenberger, IC manager of piggyback sales. The trains also will carry mail and express.

W. R. Burke appointed to ICC; Tuggle reappointed

Wallace R. Burke, a member of the Public Utilities Commission of Connecticut, has been appointed to the ICC, and Commissioner Kenneth H. Tuggle has been reappointed. President Johnson sent the appointments to the Senate for confirmation last week.

Favorable Senate action may be anticipated. So Burke, 58, will succeed William H. Tucker, of Massachusetts, who left the Commission when his term expired at the end of last year. Tuggle, 64, a former lieutenant governor of Kentucky, came to the Commission in 1953. He is a Republican and Burke is a Democrat. There is another vacancy, which was created by the death last February of Grant E. Syphers of California, a Republican.

Employee accident-rate declines

Six railroad employees were killed while on duty in May 1968, and 1,372 were injured—a substantial reduction from the 16 fatalities and 1,409 injuries reported in May 1967, according to the Federal Railroad Administration's latest accident report.

ICC wants views on passenger-service powers

All passenger-carrying railroads have been invited by the ICC to state their views on the extent of Commission jurisdiction over railroad passenger service and whether minimum service standards should be promulgated in the event the Commission has jurisdiction.

These views will be expressed at a Sept. 18 oral argument in Washington. Basis for the argument is Examiner John S. Messer's proposed report which parlayed a complaint against Southern Pacific service into a proceeding involving passenger service generally (RA, April 29, p. 48). The merits of that complaint will also be an issue at the argument. Verified statements of railroad positions to be argued are due Aug. 21. That's also the deadline for statements from other interested parties who obtain permission to intervene from the Commission.

October opening planned for new Alberta railway

The new 235-mile Alberta Resources Railway is being rushed to completion in time for an Oct. 23 opening that will be tied in with a Northwest Resources Conference the following day in Grand Prairie, the line's northern terminal. The new railway will link the Peace River District of British Columbia with the Canadian National's main line at Brule, 15 miles west of Hinton, Alberta. U. S., Russian and Japanese experts will participate in the Resources Conference, which is designed to spotlight developmental potential in the area.

Crossing deaths down, but rate is still "serious"

Fewer people were killed at grade crossings in 1967 than in 1966—but Federal Railroad Administrator A. Scheffer Lang says that while the decline is encouraging, it "by no means signifies any major improvement to the over-all serious grade-crossing picture." There were 1,632 deaths and 3,812 injuries in grade crossing accidents in 1967, compared with 1,780 deaths and 4,043 injuries in 1966. Lang said that more than one-third of the train-vehicle collisions in 1967 involved motor vehicles running into the side of a moving or standing train.

MONDAY MORNING REPORT

THE CONGLOMERATE: WHAT IT IS . . .

Q. What is the nation's biggest real estate company? **A.** The Penn Central—which also happens to be the nation's biggest railroad company. **Q.** What other non-rail enterprises is Penn Central engaged in? **A.** The apparel business (through newly-acquired Kayser-Roth Corp.); the pipeline business (through the 7,500 mile Buckeye Pipe Line Co.); plus numerous investments in commercial and resort hotels, recreation parks, sports facilities and industrial parks. (There are three major development companies in the Penn Central family: Macco Realty Co. in California; Great Southwest Corp. in Texas and Georgia; Arvida Corp. in Florida).

. . . AND WHAT IT MEANS TO PENN CENTRAL

Q. How much of Penn Central's net income comes from these non-rail sources? **A.** 60%—a sufficiently high proportion that Penn Central has decided that it will no longer report railroad earnings as such; instead PC will report consolidated earnings from its diversified operations, these being the "true index" of the company's strength. **Q.** Does this mean Penn Central is going to de-emphasize its railroad business? **A.** (from Chairman Stuart T. Saunders): "On the contrary, we are determined to make our railroad system stronger and more efficient . . . to build the reputation for Penn Central as not only the largest but the best railroad in the country."

GOAL: A BROADENED EARNINGS BASE

In view of the storm now brewing along the Potomac over rail-owned conglomerates (see Watching Washington, p. 44), Saunders' comments on the "why" of diversification take on an added relevance. As he puts it: "We are attaining a better balance of earnings to make us less dependent upon the fluctuations and extremely low rate of return from railroad operations. At the same time we are strengthening our over-all financial resources." And he clearly thinks that this will permit the Penn Central to provide a better, not diminished, service for all of its customers.

TALK MAY BE CHEAP: FREIGHT CARS AREN'T

For those who doubt that Saunders really means what he says, a few current statistics may be instructive. Penn Central this year will invest $300 million in capital improvements to its railroad properties—$20 million more than the combined roads spent last year. PC is rebuilding locomotives at the rate of 97 a month, and acquiring or repairing freight cars at the rate of 59 a day. Does that sound like a railroad that's going out of the railroad business?

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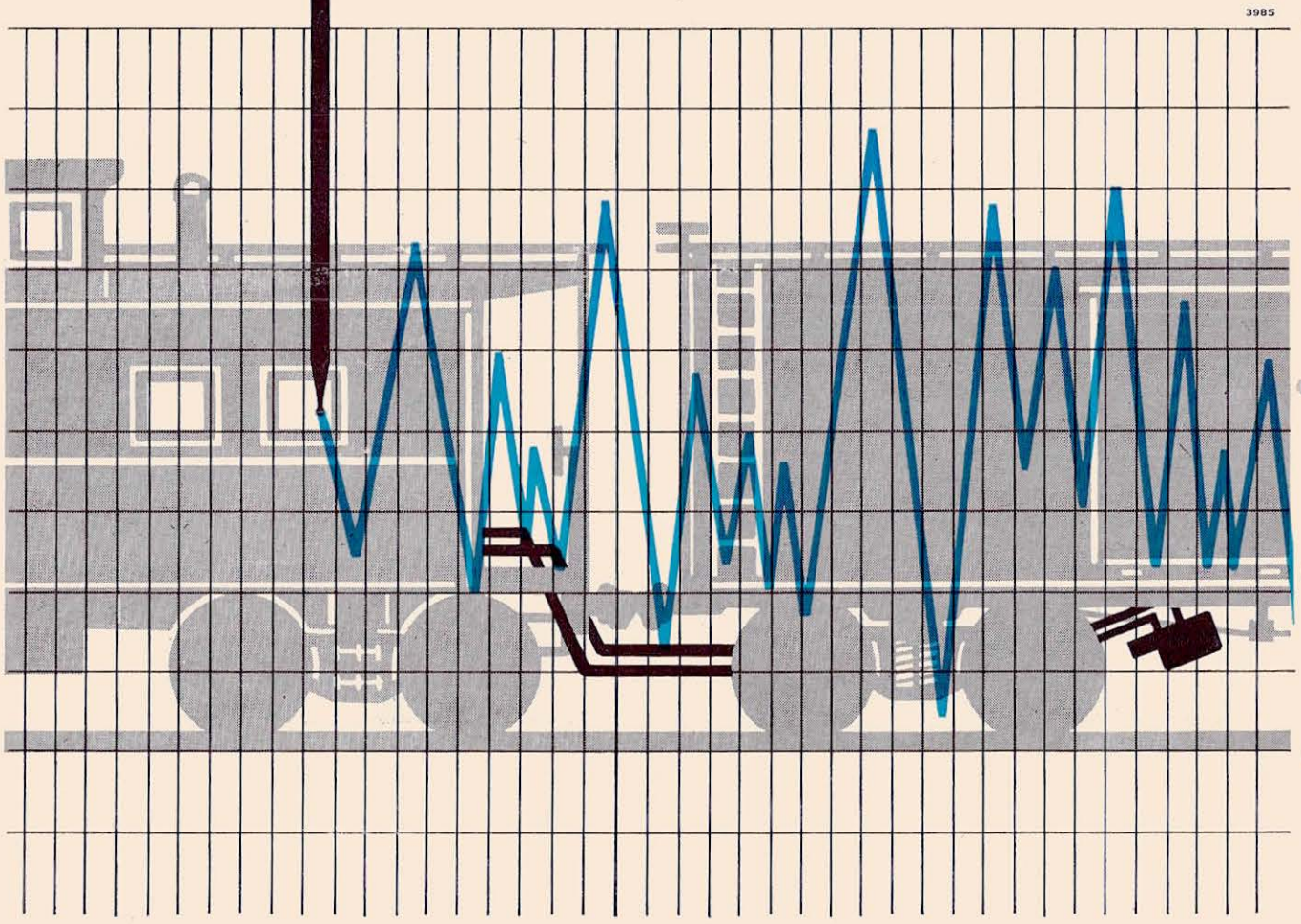

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July 29, 1968

WEEK AT A GLANCE

Penn Central posts increased profits; others cite gains

Consolidated earnings of the Penn Central Co. were $37,009,000 in this year's first half, up 15.6% over the comparable 1967 consolidated net of $32,011,000. Chairman Stuart T. Saunders said the increase reflected the continuing advantages of the company's non-railroad diversification program. For example, net income from non-railroad sources during this year's second quarter was $21,556,000, an increase of 57% over the $13,677,000 for the same period last year. But railroad earnings in the second quarter of 1968 were only $2,065,000, compared with $6,853,000 in the 1967 period. Saunders said Penn Central in future would report only consolidated earnings "since they are the real measure of our performance."

As for the future, Saunders said: "We anticipate that earnings for the balance of the year will advance over the results for 1967. Any prediction, however, must take into account the possibility of a work stoppage in the steel industry."

Other six-months earnings:

Norfolk & Western—$35.5 million, up from $35 million in 1967.

Southern—$20.3 million, up from $17.2 million a year ago.

Louisville & Nashville—$11.1 million, up from $11 million in 1967.

Chesapeake & Ohio/Baltimore & Ohio—$23.4 million, down from $26.1 million.

Among those in the loss column was the Reading, whose deficit of $646,000 in this year's first half compared with a loss of $2.9 million in the comparable period a year ago.

New line, new train, new business

The biggest new railroad construction project in the eastern-U.S. in several decades, the Penn Central's Waynesburg Southern is now in business—and it's already generating new business with new trains. A 7,000-ton unit coal train (photo) inaugurated service over the new $20-million, 35-mile line between Waynesburg, Pa., and the Blacksville area of northern West Virginia. Objective: to develop coal reserves adding up to half a billion tons. The new line will handle 9 million tons of coal annually by 1972. It will open up new employment for up to 500 coal miners.

CZ, City of SF: Reservations still available

The ICC has not looked favorably on Western Pacific's bid to discontinue the "California Zephyr," nor Southern Pacific's proposal to do the same to the "City of San Francisco." The Commission's verdict: Continue the trains for another year. The Commission suggested that both roads could file for reconsideration if they developed a combined operation that would offer adequate daily service to the public.

SP had no immediate comment on the order; WP President M. M. Christy called it "a great disappointment to us, as our current out-of-pocket losses of more than $1.5 million a year are an unconscionable burden."

TCEU elects Lowry to succeed Leighty

They don't come any closer than the election in which Fourth Vice President A. R. Lowry was elected president of the Transportation-Communication Employees Union, to succeed the retiring George E. Leighty. Lowry defeated First Vice President D. A. Bobo, 166 to 165, with one spoiled ballot—ironically, Lowry's own. Bobo was then re-elected first vice president by acclamation. In a second significant action, also on a close vote, delegates to TCEU's quadrennial convention rejected, at least for now, amalgamation with the Brotherhood of Railway and Airline Clerks. The delegates' decision: To look the situation over more carefully, with an eye toward developing other proposals from other organizations. Again, there was a certain irony to the situation: Bobo, alone among TCEU grand officers, came out publicly in opposition to the BRAC proposal.

GUS WELTY

LINES ON LABOR

HORSE-RACING thrives on the honest differences of opinion among men. But in the turf world, truth shows clearly—at the finish line. Honest differences of opinion also can and do crop up among men in the infinitely complicated world of management-labor relations. And here, ultimate virtue is less clear-cut. Sometimes it almost seems that there *is* no truth. But there has to be. It will be found, or it will make itself evident.

COMMUNICATIONS sometimes complicates the problem. Without getting into arguments over whether the medium is the message or the massage or whatever, it can probably be agreed that communicators sometimes have trouble sorting things out. The act of communicating can become more important than the content.

MANAGEMENT-LABOR matters do lend themselves to a lot of communicating—much of it ritualistic, much of it reflecting old habits. New problems get old responses—and chances are that just about everybody who tries to communicate in this perilous area sooner or later, by design or by accident, wallows in the same old slough.

THE PROSPECTS aren't really pretty, for either truth or its communication. One union communicator, a professional and a veteran in the business, offers a stern rebuttal to oft-heard criticism of labor's communications process: "Union journalism is not alone in being turned inward. You say 'self-destructive,' but that is not the proper word. Every specialized publication, including your own, suffers from specialization and from the narrow viewpoints imposed by the confines of one industry. Even broad publications can suffer from ideological narrowness. What is left is a mass and morass of communication and media devices and tactics which confuse more than they inform."

THIS SPOKESMAN for labor's viewpoint touches on one of the basic truths of management-labor affairs—that communications "is only part of the answer, and that there needs to be a deeper cooperation and trust that goes two ways." The point is an effective one. But where does difference of opinion end and truth begin? For the ill-advised horse-player, there's always a next race, another day, another track. In railroading, the man—or the group—that bets a loser may not have the same options. Where does truth start? Perhaps with a simple premise: Industry healthy, jobs rewarding—industry sick, jobs distressed.

GE and Grumman win contracts to study TACV

Trains that float on a cushion of air may sound Buck Rogerish to old-line railroad men—but the Department of Transportation is willing to spend $800,000 for a preliminary look into the possibility.

DOT last week awarded contracts totaling that amount to General Electric and to the Grumman Aircraft Engineering Corp. for design studies of what it called a "300-mph tracked air cushion research vehicle" (TACV).

The contracts call for a six-month study of such a system. In addition to the design of a research vehicle, GE and Grumman will study the requirements for a guideway. When the studies are completed, DOT's Office of High Speed Ground Transportation will evaluate their results and (if all has gone well) invite bids for detailed designs and construction of the vehicle and guideway.

In announcing the contracts, DOT Secretary Alan S. Boyd said the TACV idea offered "great promise for high-speed intercity and intracity passenger service, especially airport access travel."

Similar work is already far advanced in France, where the government is underwriting a full-scale test of Jean Bertin's Aerotrain; and in Britain, where the test vehicle is called a Hovertrain.

The air-cushion-vehicle idea has also won great support from railroad men in Japan. Officials of the Japanese National Railways have been quoted to the effect that within two or three decades, ACV will replace standard trains as the prime mover of people on land. A proposed second extension to the New Tokaido Line is being thought of in these terms.

President gets bill to extend fast-train tests

Congress has cleared for Presidential action a bill to extend the Department of Transportation's high-speed ground transportation program, which includes the Northeast Corridor demonstration of fast-train service. Congressional action was completed July 19 when the Senate passed the House approved bill, H.R. 16024, to extend the program's expiration date from Sept. 30, 1968, to June 30, 1971 (RA, July 22, p. 11). Since it is an Administration bill, President Johnson is expected to sign it.

In 1898 your problem was how to join two cars. In 1968 it's how to separate two million.

When railroad people decide to standardize something, you just know it's important.

After all, they've only done it a few times in the last 100 years.

The first in 1887, when they agreed on the gauge of the track.

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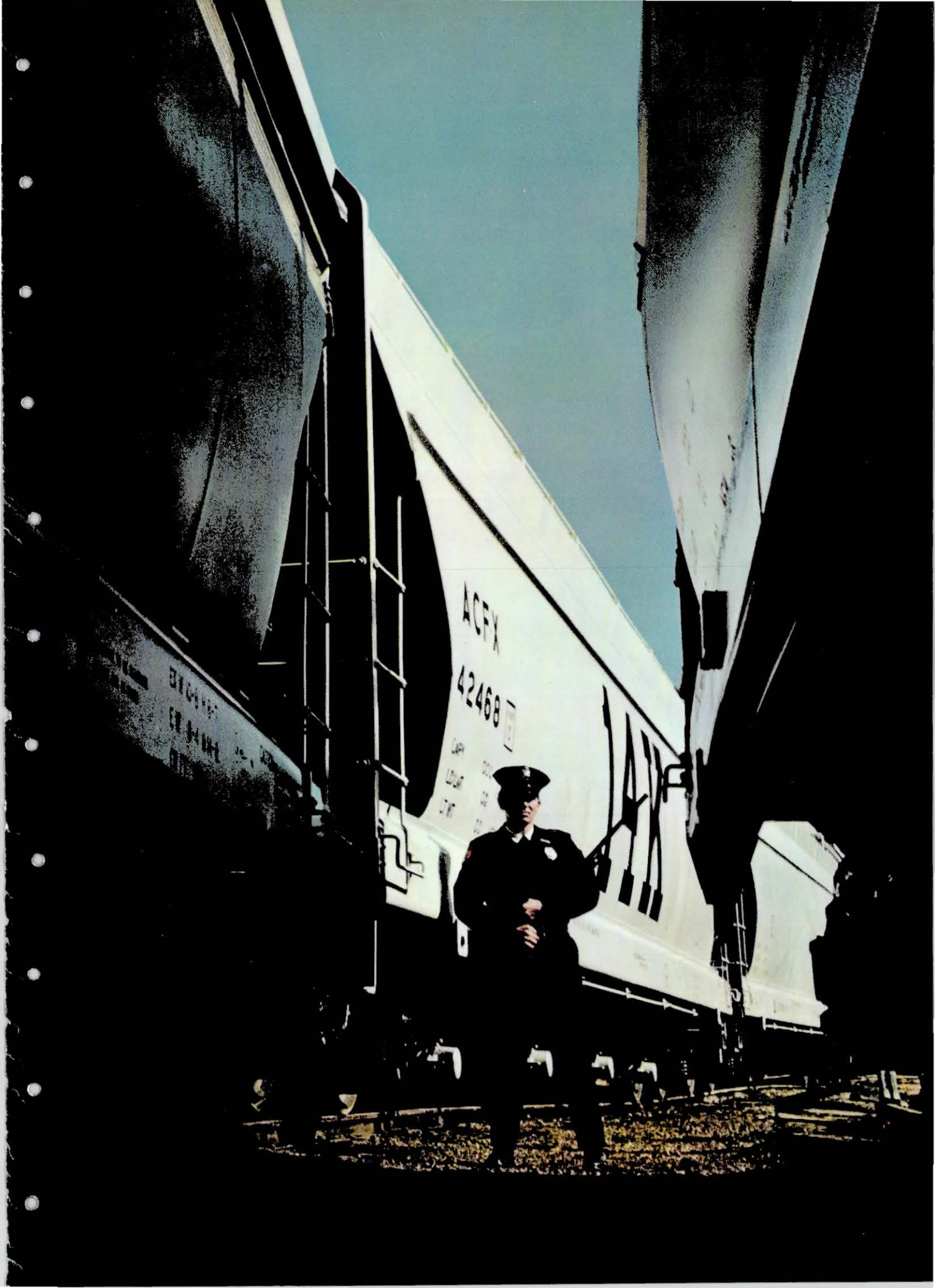
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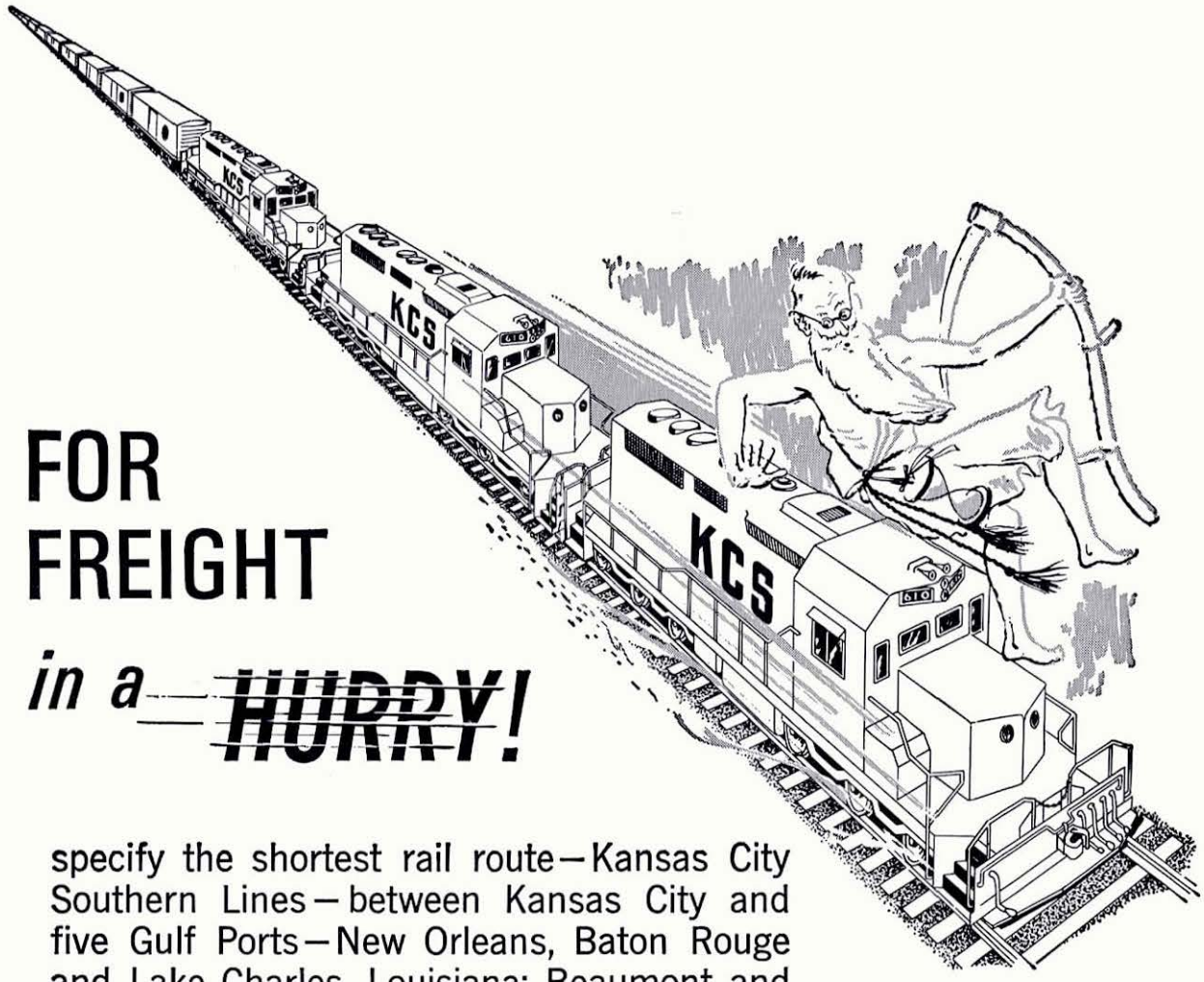

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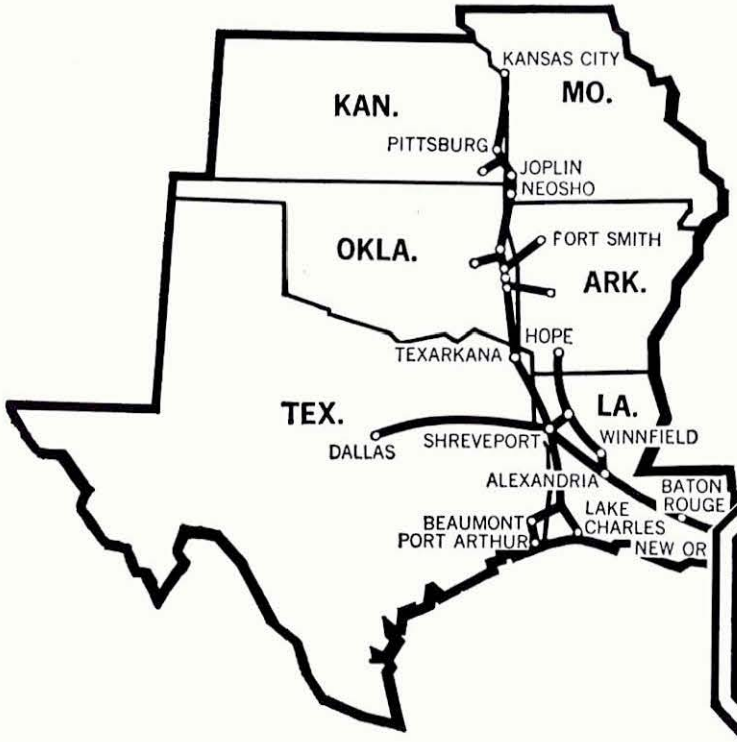
specify the shortest rail route—Kansas City Southern Lines—between Kansas City and five Gulf Ports—New Orleans, Baton Rouge and Lake Charles, Louisiana; Beaumont and Port Arthur, Texas. Other fast service to and from Dallas, the Southeast and Southwest.



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Vice President — Traffic
KANSAS CITY, MO. 64105
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KANSAS CITY SOUTHERN *Lines*

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United States Steel Corporation

"In these busy times, when so much is occurring and at so fast a pace, I am grateful for any tool which will help keep me abreast of developments.

"One such tool—and a most valuable one—is Railway Age, 'must' reading for myself and key members of my staff."

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Even your secretary can open a door of Alcoa Aluminum.

She won't have to use a fork lift or a sledge either. Doors of Alcoa® Aluminum can be opened quickly and easily by one person. It's an advantage that saves time and money year after year, every time the car is loaded, unloaded or inspected. As an added benefit, Alcoa Aluminum reduces the car's deadweight. A 20-ft double

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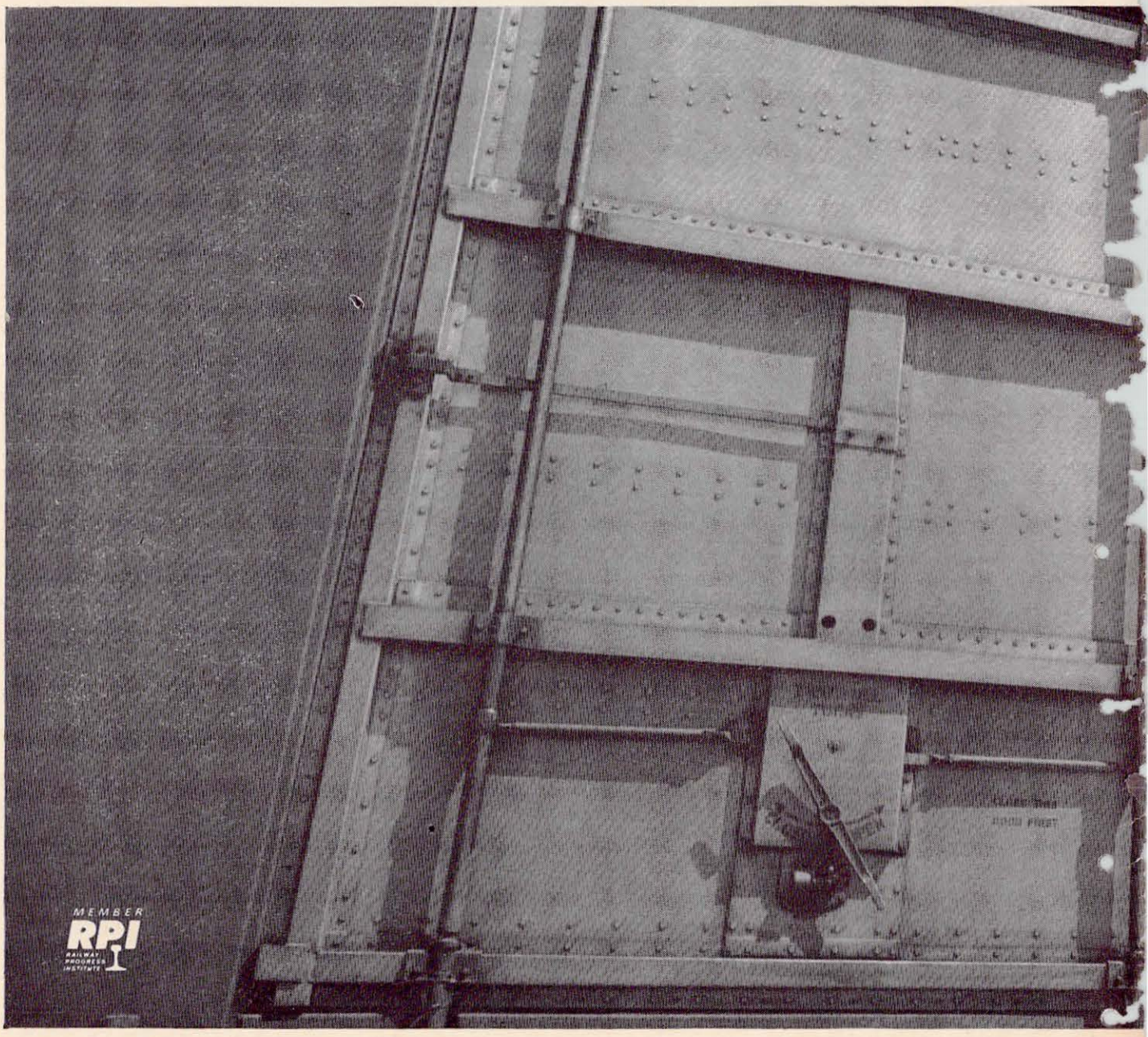

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Send me more information about boxcar components made of Alcoa Aluminum.

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Circle 12 on coupon page 55

We put more lead in our batteries so you'll get more diesel starting out.

Putting lead into a battery is practically a ritual with us. We're so particular that we have developed a special metal solidification process to pack the lead in. It gives us a denser, non-porous grid member, free of air bubbles or dross, that will work for years without trouble.

We're fussy. But being fussy about lead is the sort of thing that has earned Gould's reputation as battery pros. We're fussy about service, too—delivering the diesel batteries you need when you need them.

For complete information on Gould diesel starting batteries write:
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Circle 13 on coupon page 55

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Get 'em there fast...that's what auto makers say about shipping new cars to their dealers. And The Milwaukee delivers! No railroad gets autos to the Pacific Northwest faster than the Fast Track. And we carried more of them last year than ever before. Fast schedules and expanded facilities make the difference. We've been in the auto-carrying business longer than most other railroads. Experience counts. Ask any major auto maker.

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The remanufactured Timken® "AP" bearing. How will it perform?

Remanufactured Timken® bearings roll just as dependably as new ones when they're remanufactured with genuine Timken bearing parts... by experienced Timken bearing people. These people replace only parts necessary to provide performance comparable to that of new Timken bearings during the next operating period.

ESP — Extra Service Program: We will remanufacture your Timken "AP" bearing under either of these two plans.

Plan I. You can exchange prior service Timken "AP" bearings — less end caps — for remanufactured Timken bearings. We'll ship them immediately on a unit exchange basis.

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Either way, we give an original Timken bearing warranty to back up what we do, and what you get.

The Timken Roller Bearing Company, Canton, Ohio. Timken bearings sold in 133 countries; manufacturing in Australia, Brazil, Canada, England, France, South Africa and the U.S.A.

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Circle 14 on coupon page 55

Meet a man who thrives on communications challenges. The Stromberg-Carlson Man-on-the-Scene.

Voice and data communications are his specialty—particularly the kind that help keep a railroad running smoothly. He's your source not only for equipment, but for the six services essential to obtaining maximum communications efficiency in your system:

SYSTEMS PLANNING. After studying and analyzing your communications network, he'll show you how it can be tied together end to end by a complete system for peak effectiveness at lowest possible cost.

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Meet and talk with our Man-on-the-Scene. He's a professional in voice and data communications. And he likes challenges—the bigger the better. They give him a chance to show what Stromberg-Carlson equipment and backup services can do for your communications. You reach him at Railroad Division, 100 Carlson Road, Rochester, N.Y. 14603

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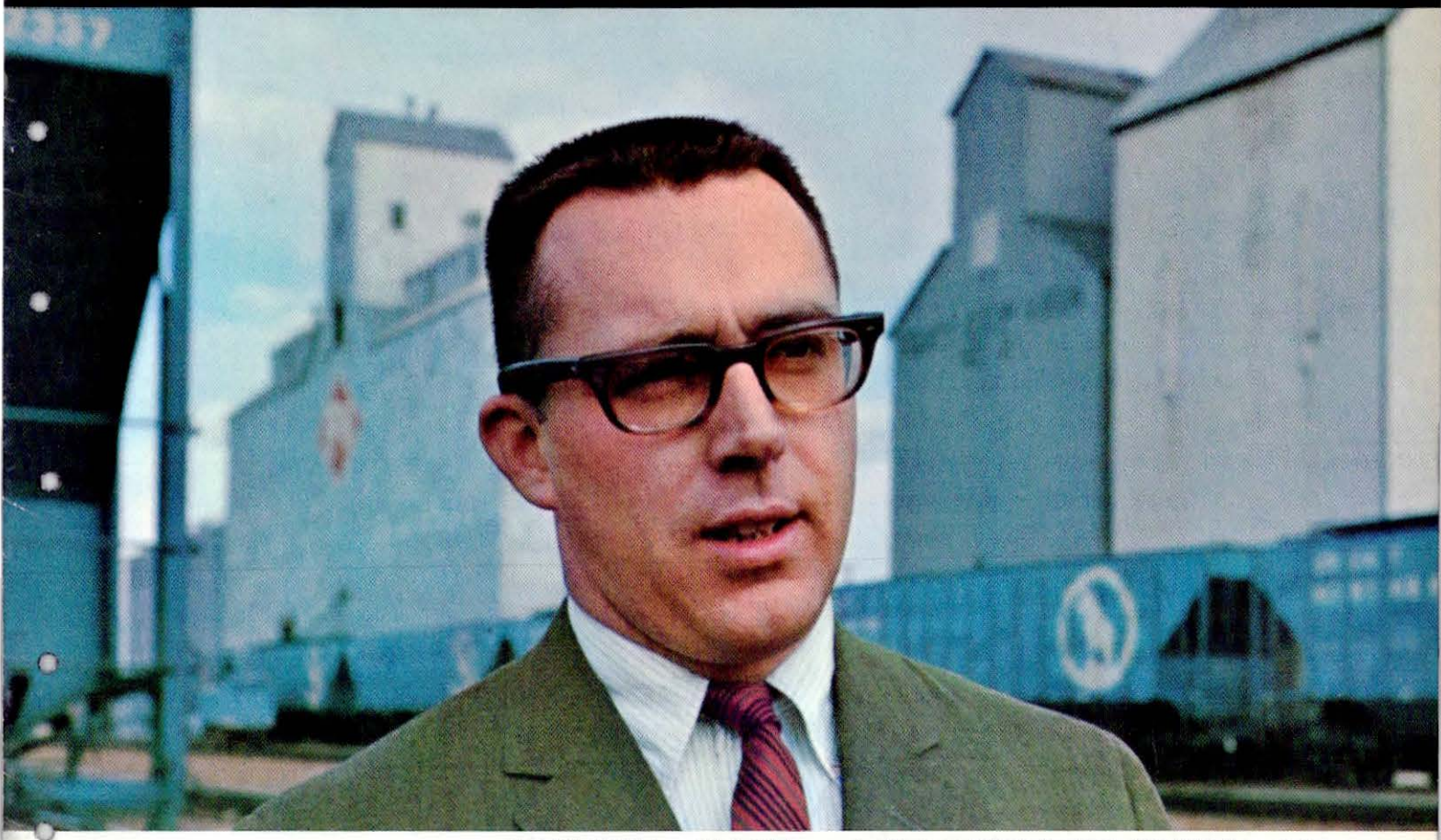
KEN TERRY, ROCHESTER

Grain Grower? Grain Processor? Grain Marketer?

(No. A new kind of railroadman!)



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Ted Michon knows the grain business. As a trader and executive of a leading grain company he has had first-hand experience in buying, handling and shipping grain.

Since joining Great Northern, improving methods for shipping has been Ted Michon's job. And he concentrates on grain.

For example, recently he helped organize the first trainload grain shipment from eastern Montana to a Northwest Pacific port. 50 Great Northern jumbo hopper cars loaded with 175,000 bushels of wheat bound for export to Japan were moved smoothly and swiftly as an experiment that might point the way to improved grain shipping methods.

Great Northern has other market managers like Ted Michon, each applying specialized knowledge and ingenuity to a major industry. To do his job well, each man must know his customers' business—to see distribution patterns and needs from customers' point of view. Then he can tap every specialized brain and skill of a mighty transportation system for the most resourceful answers.

Ingenuity, innovation and change are the new order. Ted Michon and his colleagues are surely and swiftly changing our business. Our business is *your* business, and we want to make it grow.

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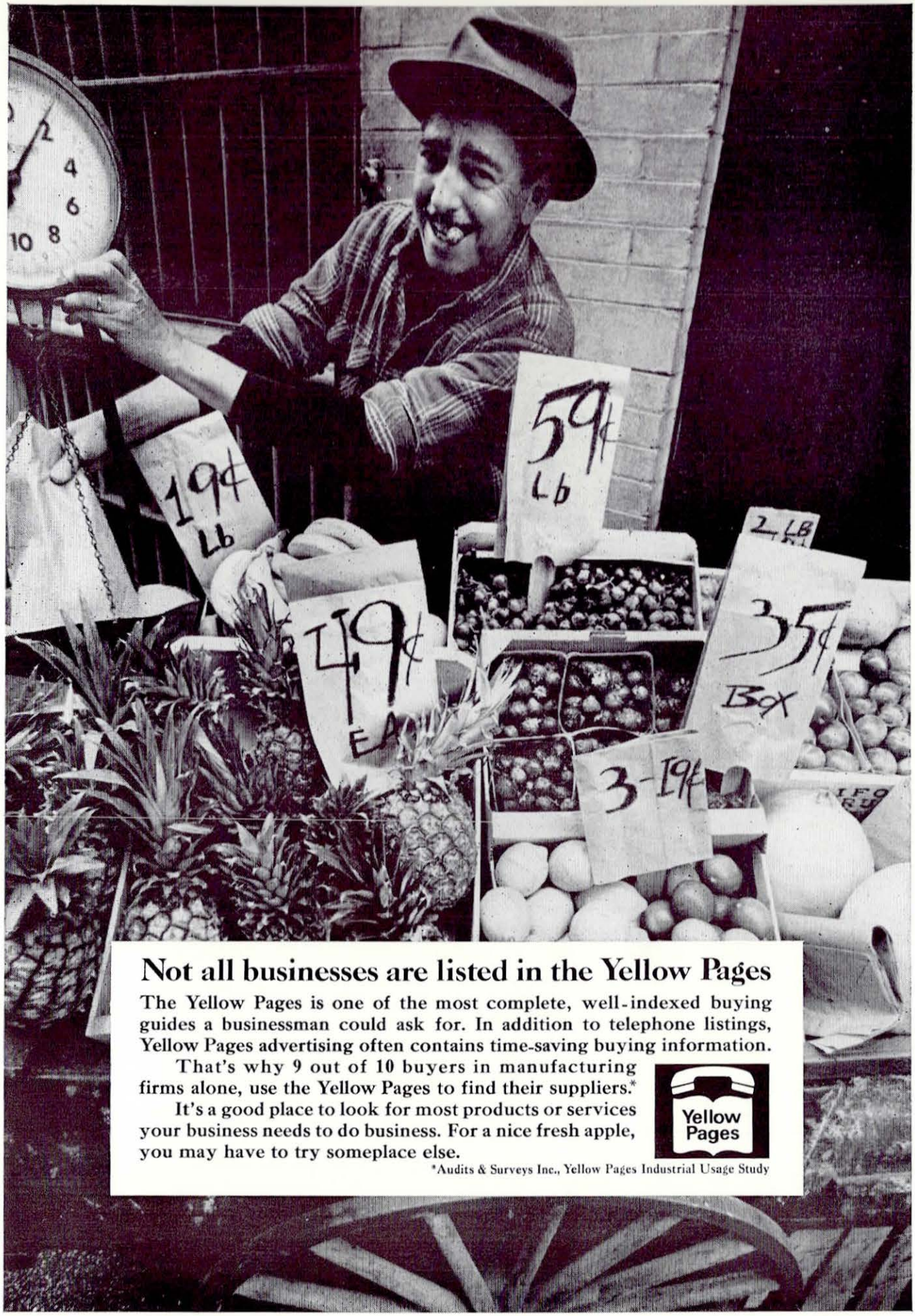
GREAT NORTHERN



Not all businesses are listed in the Yellow Pages

The Yellow Pages is one of the most complete, well-indexed buying guides a businessman could ask for. In addition to telephone listings, Yellow Pages advertising often contains time-saving buying information.

That's why 9 out of 10 buyers in manufacturing firms alone, use the Yellow Pages to find their suppliers.*

It's a good place to look for most products or services your business needs to do business. For a nice fresh apple, you may have to try someplace else.

Yellow Pages

*Audits & Surveys Inc., Yellow Pages Industrial Usage Study

IT STARTS HERE
Heart of the Burlington's car-location operation is the Data Processing Center in the Q's Chicago headquarters building. Two IBM 360/40 units do the work.

HOW COMPUTERIZED CAR TRACING PAYS OFF

For shippers, it means fast answers — for railroads, better car control and improved utilization.

By ROBERT W. MCKNIGHT
Signaling and Communications Editor

On a few railroads—the very smallest—car-tracing may still be a matter of one part guess and two parts looking out the window to see what's going on in the class yard below.

On most roads—small, medium and large—the car-location and car-tracing operation is a science. Better communications, more efficient data-handling equipment and improved concepts are making it so.

Railroad customers are talking directly to railroad computers. The flow of new data-processing equipment onto the railroads is never-ending—to the point where a photo taken of a computer center in January may be dated by July. Employee training is being stepped up, in a search for speed and accuracy which also never ends.

And the acronyms are everywhere—COIN, EAGLE, FACT, ACT, CARLOC, INFO, CLIC, MAIN, TRACE, and so forth.

• **Spending to save.** It's an expensive job, this business of keeping constant tabs on 1.8 million freight cars. But the returns, tangible and intangible, are also large.

Customers are getting a better, more complete and, hopefully, more useful service. Railroads are on the track of improved car control and, next, improved car utilization.

A Railway Age survey of major U.S. and Canadian roads shows the extent to which the industry is leaning on computerized car-location systems to bring these multi-benefits. Of 49 roads participating in the survey, 45 indicate that such systems are working, being installed or being planned. And each of the roads which isn't moving in this direction has a good reason for preferring another route to tracing capability.

Of the four roads that do not use

(Text continued on page 32)

A QUICK GUIDE TO CAR TRACING ►

Railroad	System	How inquiries may be placed			System expansion planned for 1968-69
		Telephone to traffic office	Telephone to car-location center	Direct inquiry to computer	
Alton & Southern	Daily Car Record	Yes	Yes	—	Direct inquiry to IBM 360
Atlanta & West Point, Georgia, Western Ry. of Alabama	—	Yes	—	—	—
Bangor & Aroostook	—	Yes	—	—	—
Boston & Maine	—	—	Telex, TWX	—	Add new computer and communi-cations
Burlington	—	Yes	Yes	Telex, TWX	—
Canadian National	Traffic Master Plan	Yes	Yes	—	Yes, unspecified
CP Rail	—	Yes, also Telex	Yes, also Telex	—	Direct inquiry via Telex
Central of New Jersey	Information (INFO)	Yes	Yes	—	Install IBM 360/30
C&O/B&O	Car Location Information Center —Transportation Data System (CLIC-TDS)	Yes	Yes	—	Add Telex, TWX inquiry
Chicago & North Western	Car-Fax	Yes	Yes	—	Traffic offices to get video data terminals
Delaware & Hudson	—	Yes	Yes	—	Yes, unspecified
Duluth, Missabe & Iron Range	—	Yes	—	—	Additional management and shipper information
Erie Lackawanna	—	Yes	—	TWX	Add direct input from yards
Florida East Coast	—	—	Yes	—	—
Frisco	Management Information and Control System (MICS)	Yes	Yes	—	Install larger computers
Great Northern	Transportation Service Control System (TSCS)	Yes	Yes	Telex	Direct inquiry via Telex and TWX
Illinois Central	Mid America Information Network (MAIN)	Yes	Yes	Telex	Direct inquiry via TWX, and cathode ray tube
Kansas City Southern	KCS Computer Service	Yes	—	Telex, TWX	Addition of industry movement data
Lake Superior & Ishpeming	—	Yes	—	—	—

to car-tracing

Railroad	System	How inquiries may be placed			System expansion planned for 1968-69
		Telephone to traffic office	Telephone to car-location center	Direct inquiry to computer	
Louisville & Nashville	—	Yes	Yes	Telex, TWX	Automatic handling of no-records, fleet tracing
Milwaukee	Carscope	Yes	Yes	—	Add computer equipment
Missouri Pacific	Early Acquisition Geographic Location of Equipment (EAGLE)	Yes	Yes	IBM 2260	Add terminals
Norfolk & Western	System for Computer-Oriented Operations (SCOOP)	Yes	—	—	Expansion of inquiry system and use of high-speed devices for data transmission
Northern Pacific	NORPAC	Yes	Yes	—	Provide direct inquiry to computer
Pacific Great Eastern	—	Yes	Yes	—	Upgrade reporting terminals
Penn Central	Instant Car Locator (ICL, railroad tracing); Automatic Car Locator (ACL, direct to customer)	Yes	Yes	—	Use of digit input, voice answer-back
Reading	Teleprocessing Random Access Communications Exchange (TRACE)	Yes	Yes	—	Install IBM 360/40
Richmond, Fredericksburg & Potomac	—	—	Yes	—	Install IBM 1800
Rio Grande	Fully Automated Car Tracer (FACT)	Yes	Yes	Telex	Yes, unspecified
Rock Island	Automated Car Tracing (ACT)	Yes	Yes	Telex	Add computer equipment
Santa Fe	—	Yes	Yes	—	Direct inquiry via Telex
Seaboard Coast Line	—	Yes	Yes	—	Provide additional information
Soo Line	—	Yes	Yes	—	Install IBM 360/40
Southern	—	Yes	Yes	Telex, TWX	Cars routed Southern held in on-line queue, at shipper's request, available for instant response whenever requested
Southern Pacific	Computer Assembled Reporting of Location of Cars (CARLOC)	Yes	Yes	—	Implementation of real-time Total Operations Processing System (TOPS)
Union Pacific	Complete Operating Information Network (COIN)	Yes	—	—	Add more stations on line
Western Pacific	Operating Information System	Yes	Yes	—	Yes, unspecified

Car-location systems: How they work

Railroad	Input data transmission/ speed	Data storage/ updating frequency	Output to traffic offices	Car movement data transmission	
				Online	Offline
Alton & Southern	Punched cards, 300 cards/min	1311 disk file, as moves made	Latest moves in past 24 hours	—	Teletype
Atlanta & West Point, Georgia, Western Ry. of Alabama	Teletype, 75 words/min	Disk file, continuous	Latest moves mailed, data also sent on request	—	To 1912 card punch
Bangor & Aroostook	—	—	Data sent on request	Telephone	Teletype, telephone
Boston & Maine	Teletype, 100 words/min; facsimile, 15 min/ wheel report; Data Speed, 1,000 words/min	Magnetic tape, once every 24 hours	Latest moves via air mail, also via Telex daily	Telephone, TWX, mail	Telex, air mail
Burlington	Teletype, 100 words/min	Disk file, magnetic tape, continuous	Movement reports on cars originating in or destined for traffic-office territories, sent twice daily. Telex inquiry capability available	Teletype	—
Canadian National	Punched card	Disk file, updated 18 times daily	Latest moves, all cars	Teletype	Magnetic tape
CP Rail	Teletype, 75 words/min; punched cards, 7 cards/min	Disk file, continuous input, updated every six hours	Latest moves, all cars, to system regions and divisions; daily reports on cars originating in or destined for traffic-office territories	Teletype, Telex	Teletype, Telex, 1401s with 1009 data set
Central of New Jersey	IBM 1050, 930 characters/min	—	Latest moves, all cars	IBM 1050	IBM 1050
C&O/B&O	Teletype, 100 words/min	Magnetic card, magnetic tape, as moves made; updated hourly	First reported moves, deliveries to connections, bad-order setouts, latest moves of cars to and from sales office territories	Teletype	Teletype
Chicago & North Western	IBM 1050, 14.8 characters/sec	Magnetic tape; updated daily	Latest moves, cars originating in or destined for traffic-office territories	—	Teletype
Delaware & Hudson	IBM 1050, punched cards, 14.8 characters/sec	2311 disk file, continuous	Data sent by inquiry	IBM 1050	Teletype
Duluth, Missabe & Iron Range	IBM 1050, 14.8 characters/sec; ACI scanners, 14.8 characters/sec	Disk file, as moves made	Data sent on traffic-office inquiry	Punched card, IBM 1050	Telephone
Erie Lackawanna	Teletype, 100 words/min	Disk file, as moves made; updated every 2-3 hours	Data sent on traffic-office inquiry	Teletype, telephone, IBM 1050	Telephone, TWX
Florida East Coast	Punched cards, 500 cards/min	Disk file, updated daily except Sunday	Data sent on inquiry on cars delivered to FEC	—	Telex
Frisco	Teletype, 60 and 100 words/min	Disk file and magnetic core, continuous input, updated 10 times daily	Latest moves on all cars daily and on request	Teletype, IBM 1050	Telex
Great Northern	Teletype, 100 words/min; IBM 1050, 150 words/min; Univac DCT-2000, 180 cards/min	Drum file, magnetic tape and magnetic core, as moves made; updating continuous	Latest moves of cars originating in or destined for traffic-office territories, continuous transmission; latest moves by direct inquiry	Teletype, punched card, paper tape, Telex, TWX	Teletype, paper tape, Telex, TWX, telephone

Railroad	Input data transmission/ speed	Data storage/ updating frequency	Output to traffic offices	Car movement data transmission	
				Online	Offline
Illinois Central	Paper tape Teletype, 75 and 100 words/min; IBM 1050 punched cards, 150 words/min	2311 and 2314 disk file, 2401 magnetic tape, continuous input; updating continuous	Latest moves on inquiry; daily wire manifest on cars originating in or destined for traffic-office territories	Teletype, magnetic tape, IBM 1050	—
Kansas City Southern	IBM 1050, 150 words/min	Magnetic tape, continuous input; updating continuous	Car-location sent on request; data on cars originating in or destined for traffic-office territories mailed twice monthly	IBM 1050	Telex, TWX
Lake Superior & Ishpeming	—	—	Basically captive operation; foreign cars handled on individual basis	—	—
Louisville & Nashville	1,000 cards/min; IBM 1050, 150 words/min; IBM 2260	2311 disk file, magnetic core; updating continuous, real-time	Latest moves, all cars, and on cars originating in or destined for traffic-office territories on request	Punched card, IBM 1050, Telex, TWX, IBM 2260	IBM 1050, Telex, TWX
Milwaukee	Teletype, 100 words/min; punched cards, 250 cards/min; telephone recording	Disk file and magnetic tape, input continuous; updated hourly	Latest moves, all cars originating in or destined for traffic-office territories reported daily	Teletype, punched card, Telex, TWX, telephone	Teletype, paper tape, Telex, TWX, WU 115
Missouri Pacific	Teletype, 13 stations, 60 words/min; 20 stations, 60 cards/min; IBM 1050, five stations; Telex, five stations; eight IBM 2260s; two IBM 2740s	2314 disk file, continuous input; updating continuous	Data sent on request to traffic offices	Teletype, punched card, paper tape, IBM 1050	Teletype, paper tape, Telex, IBM 1050
Norfolk & Western	IBM 1050, 14.8 characters/sec, punched cards, eight cards/min; IBM 2740	Disk file, continuous input; updating continuous	Latest moves, all cars, daily; data also sent on request	Punched card, IBM 1050, IBM 2740	Teletype, Telex, IBM 7702
Northern Pacific	Teletype, 60 words/min; IBM 1050; Nyematic recorders	Disk file, magnetic tape; updated every 24 hours	Latest moves, all cars daily; data also sent on request	—	Teletype, Telex, telephone
Pacific Great Eastern	Teletype, IBM 1050, mail	Disk file; updated daily	Data sent on request	—	Teletype, telephone, IBM 1050 punched card
Penn Central	Teletype, 100 words/min	Disk file, input continuous; updated six times daily	ICL data sent on request; ACL data sent daily	ICL Teletype, ACL TWX	ACL TWX
Reading	IBM 1050, 21 terminals, 150 words/min	Disk file and magnetic tape, input continuous; updated every 2-3 hours	Latest moves on all cars by inquiry on IBM 2740; latest moves on cars originating in a sales territory sent weekly by mail	IBM 1050, mail	Punched card, telephone, mail
Richmond, Fredericksburg & Potomac	IBM 1050, three terminals, 80 words/min	Card file, updated daily	Latest moves, all cars, sent daily	—	IBM 1050
Rio Grande	Teletype, 100 words/min; punched cards, 100 cards/min	Disk file; updating continuous	Latest moves of care originating in or destined for traffic-office territories, sent daily	Teletype, paper tape, telephone	Teletype, paper tape, telephone, Telex, TWX
Rock Island	Teletype, 60 words/min; IBM 1050, 148 words/min	Disk file and magnetic tape, continuous	Latest moves of cars from and to selected traffic-office territories sent twice daily	Teletype, IBM 1050, telephone	Teletype, Telex, telephone

(Continued)

(Continued)

Railroad	Input data transmission/ speed	Data storage/ updating frequency	Output to traffic offices	Car movement data transmission	
				Online	Offline
Santa Fe	Teletype, 197 stations, 60 words/min; 10 stations, seven punched cards/ min; IBM 1050, 150 words/min	Disk file and magnetic tape, as moves made; updated daily	Latest moves of cars destined for traffic-office territories, and by inquiry	Teletype, paper tape, telephone	Teletype, paper tape, Telex, TWX, telephone
Seaboard Coast Line	IBM 1050, 560 characters/min	Disk file, magnetic tape, input continuous; updating continuous	Latest moves, all cars, to selected offices on microfilm	IBM 1050	—
Soo Line	Teletype, 100 words/min; IBM 1050, 180 words/min	Disk file, magnetic tape, input three times daily; updated daily	Latest moves, all loads on Soo; waybill input data on cars originating in or destined for traffic-office territories, sent daily	Teletype (Chicago only)	Air mail
Southern	IBM 1050, 60 words/min; facsimile, 6 sec waybill transmission time	IBM 2302 disk file, input continuous; updating continuous	Data sent on traffic-office request, inquiry on specific car numbers only	Telex, TWX, telephone	Telex, TWX, telephone
Southern Pacific	Teletype, 60-100 words/min	Continuous input on paper tape placed on magnetic tape and fed to program four times daily	Latest,movements on assigned cars daily to shippers; latest moves, all cars originating in traffic-office territories, sent twice daily to most offices; latest moves, all cars destined for traffic-office territories, sent once or twice daily. Transmission of data on traffic-office request to be implemented in August 1969	Teletype, paper tape, IBM 1050, Telex, TWX, telephone	Teletype, Telex, TWX, mail
Union Pacific	Punched cards, 10 cards/min; IBM 1050, 130 words/min	Disk file, magnetic tape, as moves made; updated eight times daily	Latest moves on cars originating in or destined for traffic-office territories, sent four times daily	Teletype, punched card, paper tape, IBM 1050	Teletype
Western Pacific	Teletype, 75 words/min	Disk file, magnetic tape, input continuous; updating continuous	Latest moves on cars originating in or destined for traffic-office territories, sent twice daily and on request	Teletype, telephone	Teletype

(Continued from page 27)

computer-generated car-reporting information, two handle such a small volume of cars that they can be traced using manual methods; one railroad works with a captive fleet, which makes the car-tracing job relatively simple. Another road is a bridge line which receives Teletype consists from its connections covering about 95% of the cars handled. All four roads answer inquiries via telephone from their traffic offices.

• **Better service to shippers.** No matter how the information from the survey is analyzed (table, page 28), shows the key features and characteristics of car-reporting systems), one fact stands out: Railroads are computerizing the car-reporting function with two goals in mind—better car utilization, and provision of more prompt information to customers concerning car movements.

Virtually all roads report that shippers may place car-movement inquiries via telephone to sales or traffic offices. Additionally, many roads provide telephone-inquiry service at their headquarters or car location center.

Several railroads not listed in the how-to-do-it guide for shippers (table, page 30) report that they are in the process of planning, installing or implementing computerized car-reporting systems. Only those roads are shown in the table that specifically reported that they have the services available that are outlined.

Belt Railway of Chicago is typical of the many roads that are now in the process of progamming an IBM 360 computer for car-reporting and tracing functions. For BRC, a system will be operational by the first quarter of 1969. Presently, BRC maintains a car-service bureau at Clearing in Chicago which provides a car tracing service for shippers by telephone and Western Union's Telex. BRC handles about 150 car-service inquiries daily.

● **Cars ahead of paperwork.** An interesting reply came from the Long Island, which proved to be an outstanding exception. LI reports that better than 50% of its freight traffic is concentrated in a 20-to-25-mile area. The time lag between receipt and delivery is normally so short that cars are tendered for delivery before the records are available at the main office in Jamaica, N.Y.

Any car received by 6 p.m. at LIRR's Long Island City, N.Y., float bridges (Sunday through Thursday) will be tendered for delivery the following day. Cars received Friday will be delivered Monday. So here is a case where the car is delivered to the receiver, often well before the road could report its delivery from the paperwork.

Missouri-Kansas-Texas is typical of some roads that are deep in the work of planning, installing and programming for car-control systems. Meanwhile, MKT provides inquiry service through its traffic offices and also will telephone certain shippers about car-location information. Katy expects to have a computerized car-reporting system initially in service by the end of this year.

● **Reports to shippers.** Several railroads indicate that they send reports regularly, often on a scheduled basis, to shippers concerning car movements. Detroit, Toledo & Ironton, for example, reports car movements to Ford Motor Co. and Campbell Soup Co. Milwaukee Road reports car movements directly to 85 shippers via Telex and AT&T's TWX, on a daily basis.

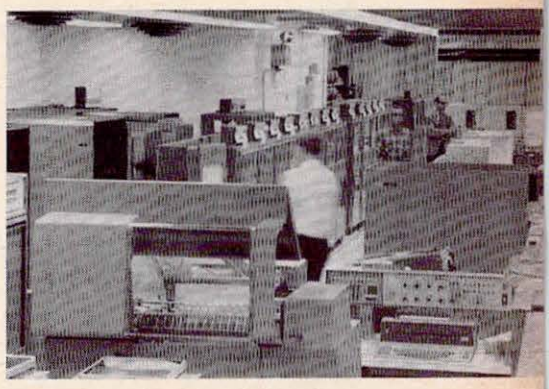
The Tels-Car information report (a standard reporting form for car movements) is used by many roads. Soo Line, for example, supplies Tels-Car information to 24 shippers via Telex each morning.

A computer print-out is fine, but the large listings of car moves sometimes make it difficult to quickly locate a particular car. A solution to the quick look-up is the use of visual displays, such as cathode ray tubes (CRT) or video displays, similar to a TV picture tube. Chicago & North Western, Milwaukee Road and Penn Central, among others, are providing trace clerks with such video-display equipment.

THIRD-GENERATION computer capability: Santa Fe's 360 complex at Topeka, Kans.

THE NEW HARDWARE: FAST, RELIABLE

MILWAUKEE'S tracing center uses visual display equipment. Operator types inquiry, computer reply bursts onto screen.



IC'S CENTER is built, like many others, around the 360. New computers are faster and have greater memory capability.

While a caller is still on the telephone, the clerk presses numbers and letters on a keyboard for the car's initial and numbers. Almost instantaneously, the last move of the car is displayed on a CRT screen.

● **Visual display for salesmen.** Regional sales offices of the C&NW (including Chicago Great Western) are now being equipped with visual-display units (CRT type) which will be tied in with the road's RCA Spectra 70 computer in Chicago. Each office will be able to query the computer direct, and the reply will be flashed back in visual display on the CRT.

"This computer network will allow a level of customer service where we will be able to do in a matter of a few seconds what used to take hours," reports John J. Kane, C&NW vice-president sales and marketing. C&NW's network for such computer inquiry will be fully operational in September.

Milwaukee Road's tracing center (Carscope office in Chicago) uses IBM 2260 visual-display units that can access an IBM 360/30 computer which contains some 100,000 car records. Reports from 72 yards and 232 interchange points feed into the computer continuously. The car file is updated hourly.

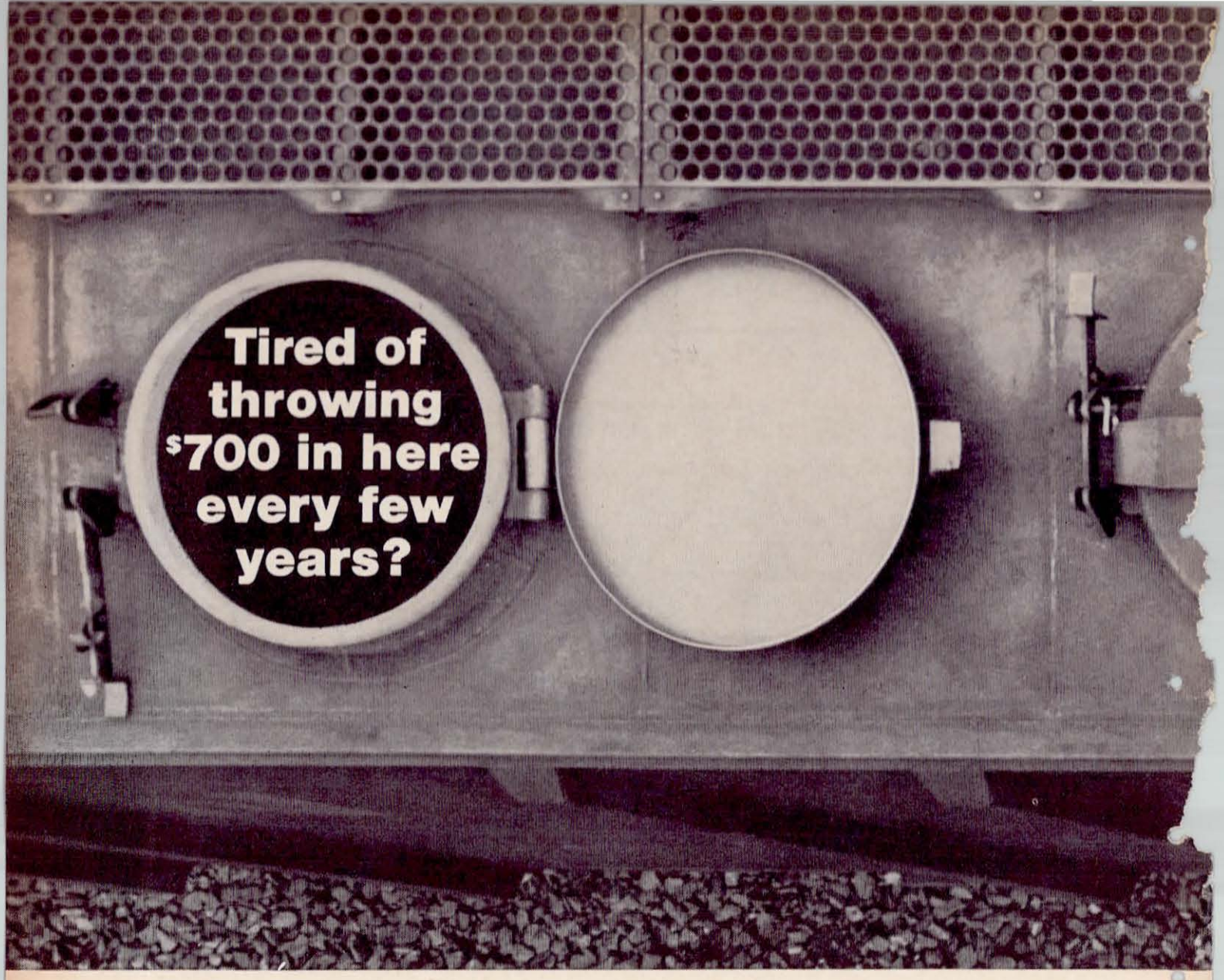
● **Voice answer next.** Penn Central during 1968-69 will be installing equipment which will provide a vocal response to a digital input to the computer requesting the latest movement information about a car.

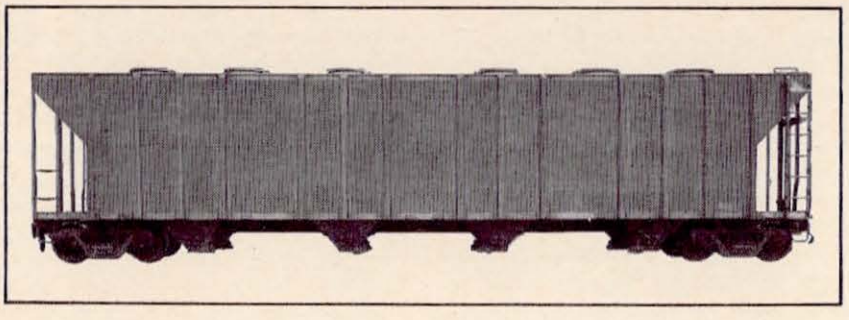
Such a voice answer to a pushbutton inquiry is very much indicative of the trends in computerized car reporting that are developing. Such advanced techniques are resulting from the use of third-generation computers. Many railroads report plans to expand their data processing capability in the car-movement field by installing third-generation computers. Key to such efforts is the new generation's ability to compute faster, to provide greater memory and to do multi-processing simultaneously.

Indicative of this movement is the fact that 20 railroads report that they have message switching computers in service or about to be installed. Several other railroads will have such computer capability available in 1969.

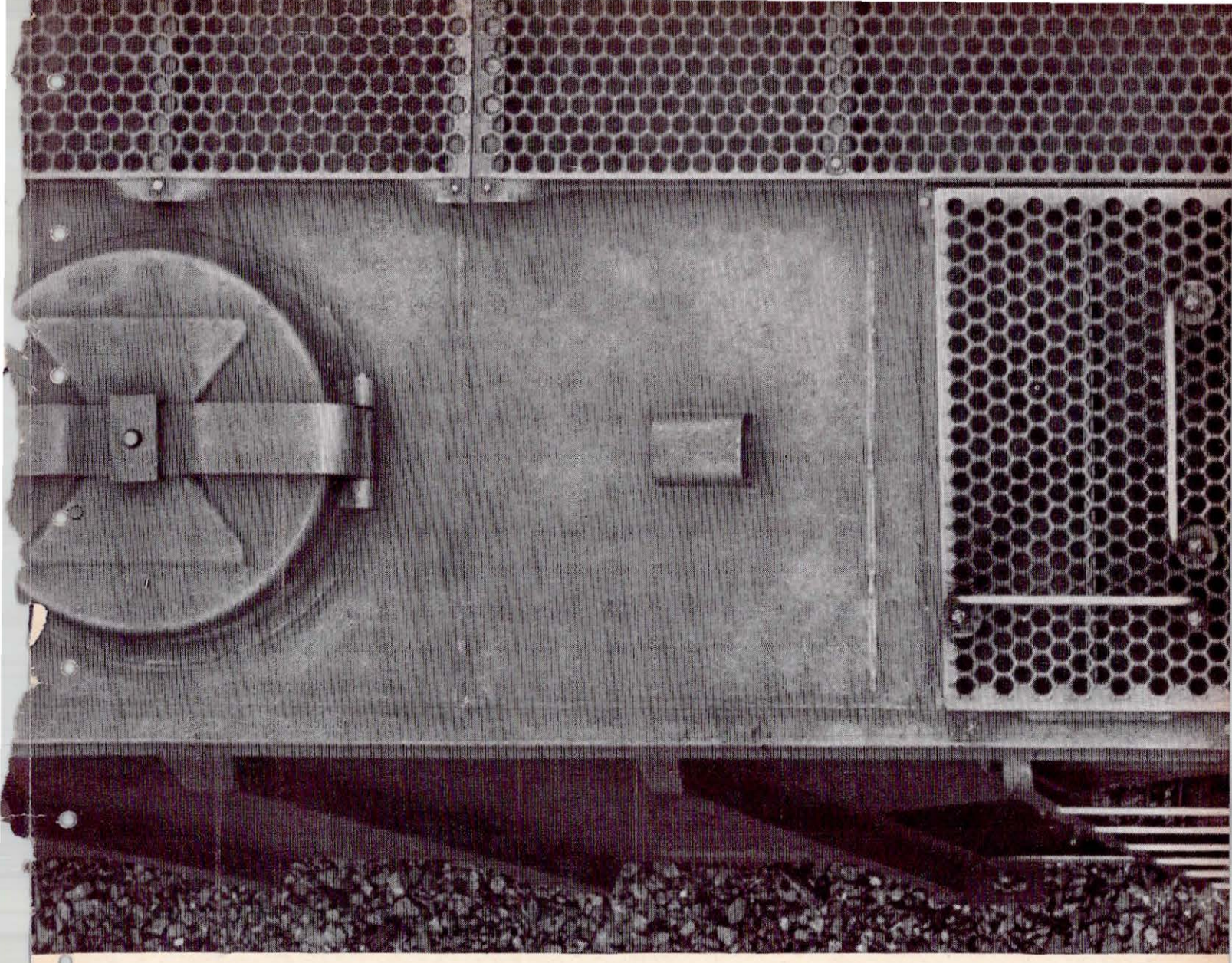
● **Multi-purpose computers.** Such devices do more than merely switch messages. Canadian National, for example, handles airline and railway reservations on its three Collins Radio computers. Also, a considerable por-

(Continued on page 56)





Investigate aluminum-body covered hopper cars. They never need lining.



Why throw good money away, gritting your teeth every time a steel covered hopper car needs a plastic liner? It can happen two or three times over the car's service life—at $700 to $800 a crack.

A covered hopper car with a body of Reynolds Aluminum, on the other hand, needs no lining. It never rusts. Surfaces are smooth, gleaming, naturally resistant to corrosion. Just as it protects food products and other sensitive cargo from contamination, aluminum shrugs off the effects of the most corrosive ladings. This *no lining required* feature more than offsets the higher initial cost of an aluminum-body covered hopper, and generates big savings for you over each car's lifetime.

Aluminum surfaces are easily cleaned. Interiors may be swept down and hosed out quickly, easily —left to drain dry without fear of rusting. Not so with a steel hopper's interior. It must be re-lined or sandblasted to clean out built-up residue. (Just think about the cumulative effect of 3 or 4 sandblastings on slope sheets.)

Another factor: lost utilization, expenses incurred and revenues lost by down-time. It starts with the cost of moving steel hoppers to and from your shop. Then $700—$800 per car for relining. And, most vitally, missed payloads while cars are out of service. Those lost revenues can never be regained. (The cycle repeats itself for lining patch-up jobs . . . every two years on one major road.)

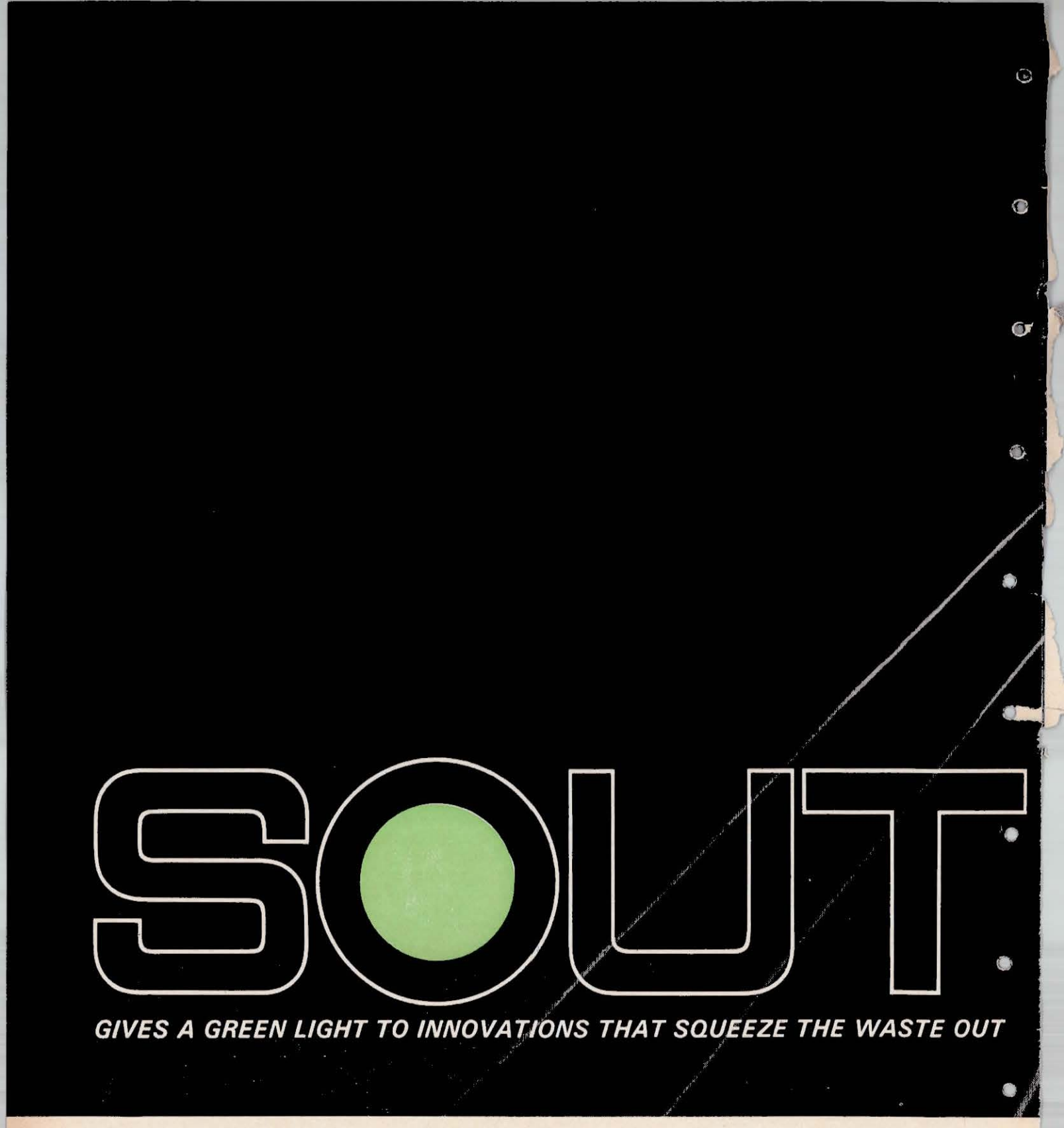
Aluminum's low-maintenance needs are far from your only plus-benefit. Lower deadweight is another. An aluminum-body covered hopper has substantially larger capacity than a steel car the same size. It can haul 7-8 tons more payload on every run.

Covered hoppers of Reynolds Aluminum bring you higher rates for off-line service, too. What's more, their light weight cuts round-trip ton mileage, reducing your operating costs. Finally, each delivers over $2,000 more in eventual scrap-value than a comparable steel car.

It's hardly surprising, therefore, that more and more railroads and shippers specify aluminum bodies for their covered hoppers all the time. Learn the full story. The men at Reynolds are the leading supplier of aluminum and aluminum know-how for railroad applications. Contact your local Reynolds office or write *Reynolds Metals Company, P.O. Box 2346-TM, Richmond, Va. 23218.*

REYNOLDS
where new ideas take shape in
ALUMINUM

Circle 18 on coupon page 55



How fast can we locate a car on our 10,200-mile railroad?

Would you believe 2 seconds?

Let's say you're a Southern Railway customer who wants to know the whereabouts of your freight. So you can gear production schedules to rail delivery of raw materials, or reduce warehousing and handling costs through close coordination of en route shipments.

Through our Direct Inquiry Service—which employs the largest centralized computer complex in the railroad industry—you simply contact our computer and give it the identification number of the car

carrying your freight. In less than two seconds, the computer will start printing your reply, giving you all the information needed to pinpoint the location of the car on our System.

This service is available 24 hours a day, 7 days a week and is answering customer queries on some 12,000 cars a day. It is one of a host of Southern Railway innovations benefiting shippers and consumers by squeezing the waste out of distribution.

Attacking waste in distribution today has pushed Southern's planning and thinking far beyond the mere mechanics of mass transportation. Our job is to find realistic, profit-building, money-saving answers to your problems and costs, *wherever they may lie in the overall distribution complex*. We have the will and the wherewithal to do that job well. Let us help you squeeze the waste out of *your* distribution. Write or call W. V. Burke, Vice President—Sales, Southern Railway System, P. O. Box 1808, Washington, D.C. 20013; telephone 202/628-4460.

SOUTHERN RAILWAY SERVES THE SOUTH

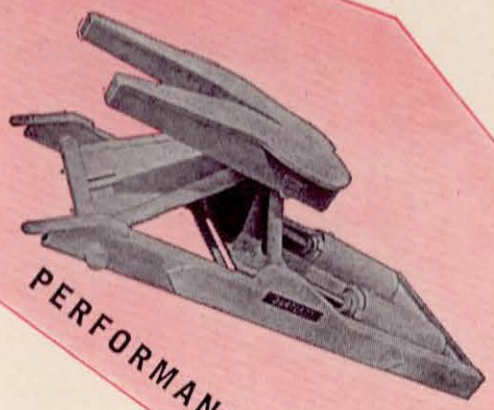
LOOK AHEAD-LOOK SOUTH

Circle 19 on coupon page 55

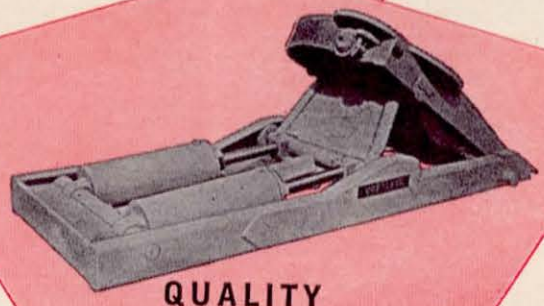
NEW BARTLETT HYDRAULIC LIFTING 5th WHEEL

M-62 Twin

100,000 LBS. CAPACITY



PERFORMANCE



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WILL LIFT 100,000# 14" HIGH.

Bartlett is constantly improving quality using high alloy steels, (no castings) and increasing unit weights thereby eliminating down time.

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INSIDE FRAME MOUNT UNIT AVAILABLE WITH 19¾" LIFT... FOR SPECIFIC TRACTORS HAVING AXLE CLEARANCE TO PERMIT LOWER MOUNTING.

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PROJECT SCHEDULING for Burlington's 360 computers gets top-level attention from W. K. Bush, left, vice president-management information services; W. P. Murphy, Jr., standing, director of computer systems and planning; and R. M. Brydges, manager of computer systems and planning. Car-location is a major job for the computers—but it's only one of many tasks they perform.

COMPUTERIZED CAR-TRACING

Instant answers on the Burlington

The "Q" is happy with its computerized car-tracing, but additional equipment and new techniques should make it even better.

"We're moving 40,166 freight cars down there," the ad said, and the photo was a spacecraft shot of Mother Earth. "We know where each one is. Right now. Want to know where any car is on the Burlington route? Ask our pair of IBM 360 computers. Get an instant answer."

With that, Burlington went real-time with its car-tracing operation. It happened in March—and since then, CB&Q has been fighting the good fight, to purify the input and bring its accuracy as close to 100% as is humanly and technologically possible.

So far as equipment is concerned, the "Q" won't be found wanting. Its computer center in Chicago has been based on two IBM 360/40 units; in July, a 360/50 was scheduled to come onto the property; in October, a 360/30 is due in. The alignment then will be one of each, 30, 40 and 50 in the 360 series. Also coming are two 2703s, to greatly increase the number of lines to the computers.

● **Good today, better tomorrow.** W. K. Bush, vice president-management information services, doesn't gild lilies in talking about the system. It's good, as Burlington people and CB&Q shippers know. But it has problems, and it's going to be better in months to come than it is today.

Bush will point out, for instance, that the road is getting about 50,000 data inputs every 24 hours. The input error rate is running at about 3,500 or 7%. After correction is made by the data-control group in the department, Burlington computer people think a 2% rate is reached, under present circumstances. They're well aware that use of ACI will help boost the accuracy of car movement information. But they're also aware that perfection depends upon a number of factors—including improvement in communications facilities.

Burlington's customers have what the customers of comparatively few roads have—direct access and almost instantaneous response to car-tracing inquiries. They can go in via Telex or TWX circuits.

● **Declaring war on errors.** Right now, inquiries are being satisfied about 90% of the time—or, put another way, about one inquiry in 10 produces an unusable reply.

Errors, or unusable responses from the computer, can be laid to any one of a number of factors:

—The customer may assume his c[illegible] is on Burlington track, and inquire on that basis. If the car isn't on Q rail as yet, he gets a non-serving reply.

—A failure in field reporting may have taken place.

—Burlington may have experienced a temporary electronic lapse in the computer, or there may have been a

A HOT LINE FOR CUSTOMERS' QUESTIONS

Burlington customers have direct access and almost instantaneous response to car-tracing inquiries via Telex and TWX circuits. Checking results of TWX inquiry are R. M. Brydges, manager of computer systems and planning; and W. P. Murphy, Jr., director of computer systems and planning.

communications breakdown.

—Input information on a car may have failed an edit test in the computer. In such a case, the bad data goes to an error section for analysis. Correct data are punched into a new card, and corrected cards are fed back into the computer every four hours.

● **Editing: Tight, or elastic?** Data editing, Burlington people know, can be a sizable problem. The Q started out with a tight editing policy. But, Wilbur Bush will point out, when you strive for perfection, you don't necessarily get it.

There was, for instance, the problem of Trailer Train cars. Uses of TTX cars can change quickly, and with each re-adaptation there can be a change in the prefix initial. Reports on these changes come through weekly, but in the meantime the computer can kick out what shows to it as a "false" initial. Burlington got a bit elastic on its editing in this case, and the computer now is more liberal in its survey of TTX reporting marks.

A second error-area involves out-of-sequence movements reported to the computer center. For the most part, these seem to be due in some part to the operating department's commendable desire to keep trains moving—or, as Bush puts it, "not to allow the computer to delay train movements." Better coordination between transportation people and computer people will solve this one.

Eliminating errors

Human errors will probably exist as long as humans handle input—but CB&Q is working on this area, too. Nine field men—one each on Colorado & Southern and Fort Worth & Denver and seven on Burlington proper—work under supervisors at Galesburg, Ill., and Lincoln, Neb., to counsel the Q's operators on input accuracy. They're aided by transmission of a daily error list, sent from Chicago to each area.

● **Popular service.** In the old days, before the present computer setup went into operation, Burlington was considerably more modern than a road which did its tracing through manual search of a jumbo file. But the customer had to telephone a Q office, and automatic-inquiry capability existed only in-house through the transportation department. Now, a good many customers can go direct to the computer, and Burlington is expecting a pickup in direct inquiry with TWX service recently instituted. At present, about 2,000 Telex inquiries are being received daily, with a similar number coming by non-dial Teletype and by phone.

In addition to the inquiry service, Burlington is also providing a service to shippers on a daily basis. Reports can be made on all cars, or on specific and selected cars.

Still a further service improvement is coming with installation of cathode ray tubes, replacing hard-copy machines, in the Chicago transportation service bureau. It's a small thing, the reporting-speed improvement which the tubes will provide as compared to the print-out method. But Burlington is convinced that the more rapid response possible with the "burst" print-out on the tube will pay off—and customers calling in will spend less time in inquiry, because transportation service bureau people will be handling each call faster.

● **How it's done.** Burlington is giving its shippers thorough instruction in how to go about tapping the computer. On a Telex inquiry, for example, the customer follows this pattern:

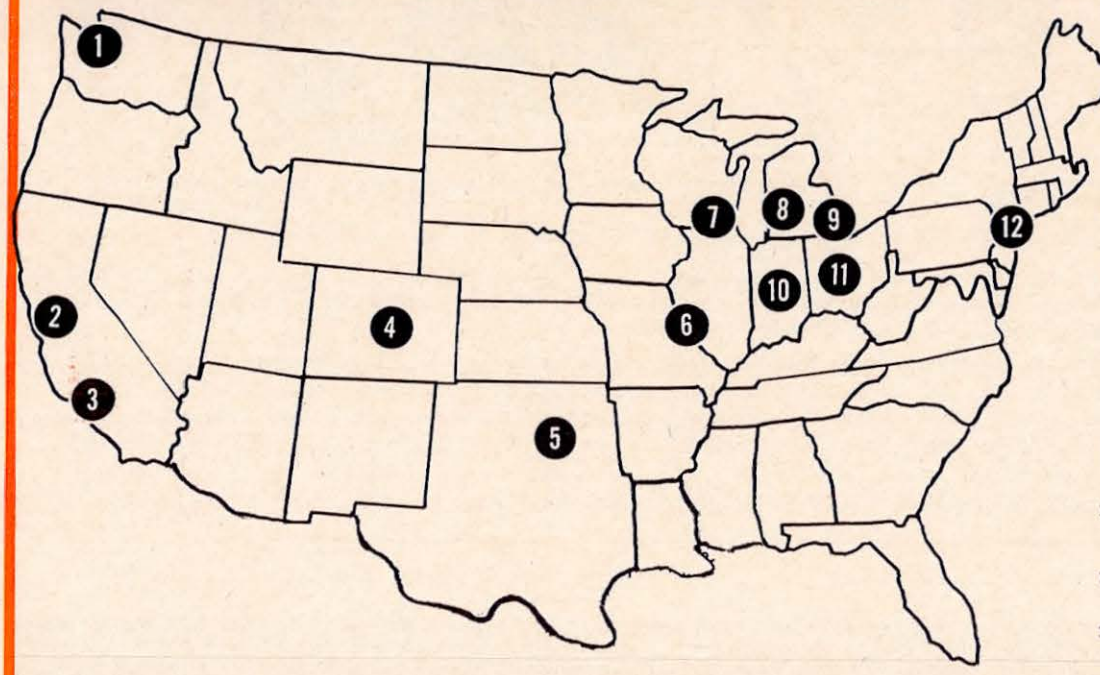
—Dial 254361, and wait for the computer to print-out a signal to begin transmission.

—Start the inquiry with one space, then type a key letter and figure followed by the car initial and number. Up to three cars can be noted on a single inquiry line without need for redialing.

—Make at least one carriage return and one line feed. Then depress, in order, the "FIGS," "H" and "LTRS" keys, and the Burlington computer will get the answer back.

In the response, the Q's car-tracing service will give the last-reporting location of the car, the date and hour, whether the car is loaded or empty. A code will indicate whether the report represents a receipt, load, diversion, departure, arrival, set, pull, constructive placement, release, stored car, on-

ANNOUNCING NATIONAL OTTAWA STEEL PRODUCTS DISTRIBUTION CENTERS EFFECTIVE MAY 12, 1968



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Massive frame! Rugged construction! Engineered to handle the heaviest trailer switching jobs in terminals or piggy-back yards. Built to carry a 100,000 lb. load; 5th wheel's double acting hydraulic lift cylinders handle 70,000 lbs.! 6-speed Allison MT-40 transmission, 275 H.P. at 3600 rpm, 480 ft.-lbs. torque at 1800 rpm. Driver controls, lights, heater and 5th wheel controls conveniently at operator's fingertips in husky one-man cab. Front mounted stack keeps exhaust fumes away from driver.

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Circle 21 on coupon page 55

Easy does it!

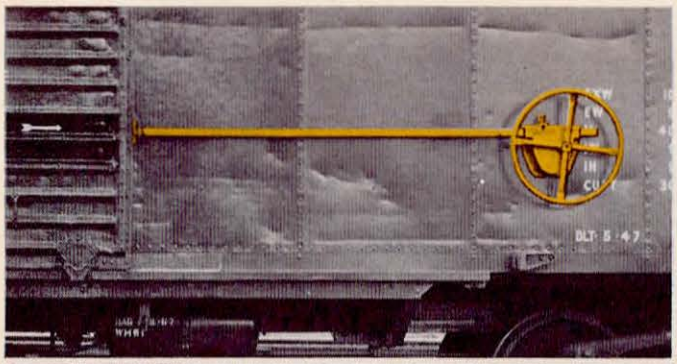
NEW SLIDEWELL DOOR CONTROL FROM HENNESSY PRODUCTS OPENS AND CLOSES BOXCAR DOORS FAST AND EASY

Finally, the crude methods used to open and close boxcar sliding doors are obsolete. No more ramming with fork-lift trucks. No more sledgehammer banging. No more crowbar bending. No more pulling and twisting with cable and chain. No more soaring costs for car door replacement and repair.

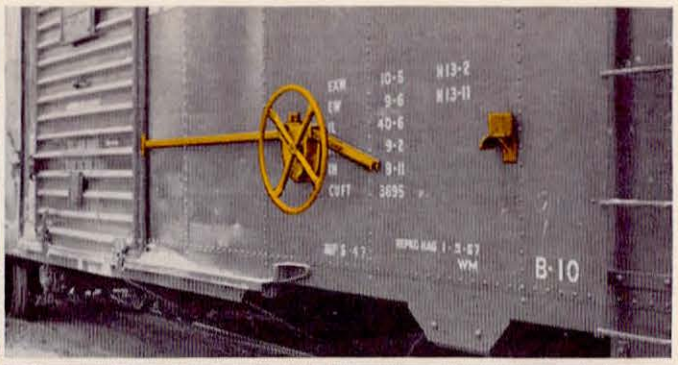
EASY does it, with the Slidewell Door Control. Now the car door is pushed or pulled at the most advantageous angle with the operator out of the way, safe from falling cargo or a displaced door. The Slidewell has a 35 to 1 mechanical advantage that makes it possible to open or close boxcar doors almost effortlessly. It fits all boxcar sliding doors and can be quickly installed on repair tracks or by carbuilders. Cost is Easy to take too . . . probably less than the cost for one car door repair job.

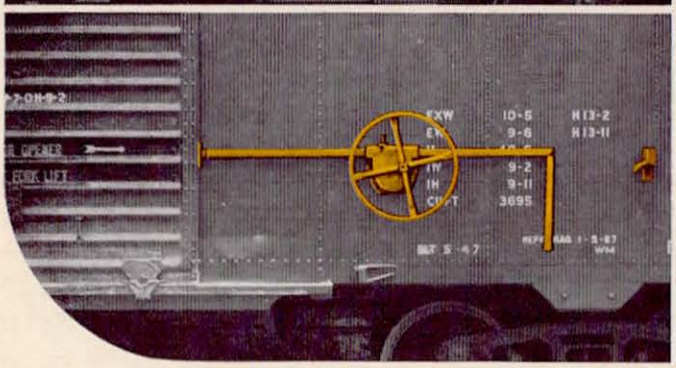
Write for complete specifications, prices and installation information.

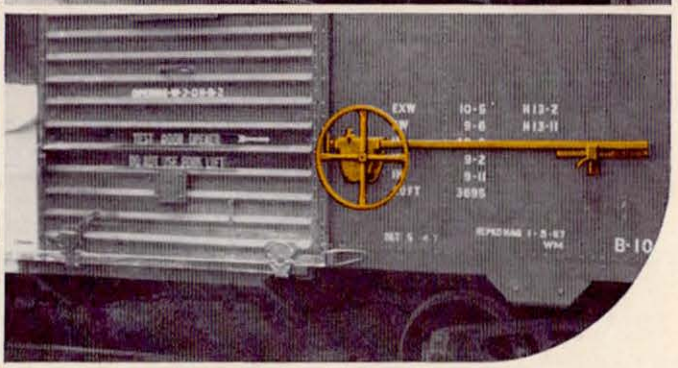
1. *Slidewell in position with car door closed and locked.*



2. *After car door is unlocked, opening is started with effortless turn of wheel.*







3. *As opening progresses, hinged, horizontal rack starts to fold so as not to contact the ladder. (Hinge not required where space is adequate)*

4. *Slidewell has completed the door opening. End of rack is completely folded and rests in support bracket. Once the car door is completely open, the Slidewell automatically locks in position with pawl. To close, pawl is lifted, and wheel turned in reverse direction. The locking pawl prevents damage to the car door should the door be open when car is traveling empty.*

HENNESSY PRODUCTS

PATENT PENDING

MEMBER RPI RAILWAY PROGRESS INSTITUTE

HENNESSY PRODUCTS, INC.
BOX 420 / CHAMBERSBURG, PA. 17201

Circle 20 on coupon page 55

hand car, departure for interchange, interchange or bad order.

Customers are also told how the computer will respond to an error on input—along with what the response means and how the error can be corrected.

Instructions on TWX contact are equally detailed. From the customer's end, the setup works much like a Telex inquiry, with an initial dial number of 910-221-2580.

● **The ultimate goal.** Bush and his staff of systems people and programmers know the value of the service the computer is helping the Q perform—and the value it has in helping traffic people sell Burlington.

But car tracing is really a by-product of the total operation they want—which is summed up in two words: Car control.

This is coming. Bits and pieces of it are here, in a variety of reports pumped out by the computer center—such outputs as a terminal evaluation report, idle-car report, terminal analysis report, locomotive utilization report, sales reports, special equipment and assigned equipment reports, car-repair scheduling reports and mechanized car-repair billing.

Bush and his staff are shooting for more. They want exception reporting on all cars that haven't moved in 24 hours. They see great improvements coming in car accounting. They see possibilities for real-time reporting to sales personnel, to keep them current. They see a bad-order car-reporting system in which the computer automatically and immediately notifies the shipper so that he can make required adjustments on a timely basis. They even look ahead to a time when there may be a "schedule" for every car—though, as Bush concedes, this would involve "a horrendous programming job."

● **"Potential unlimited."** The key to all of this is a pure data base. Burlington has come a long way, in going over to on-line message switching and message processing. Bush is convinced it will go a lot farther. He gets emphatic, when he points out that Burlington is "operations-oriented, not accounting-oriented in computer applications. The returns are much greater, in the area of equipment control. If we get the data purified, the potential is unlimited."

He's also firmly convinced that "we have all kinds of communications capability in the computer that hasn't yet been tapped."

And it's with more than just a philosophical attitude that he sums up the Q's approach to all this electronic wizardry: "The computer—it's the conscience of the railroad." ■

LUTHER MILLER

AS THE EDITOR SEES IT

WHAT'S THE QUESTION?—"Nearly everybody," observes a California reader, "has his answer to 'the railroad problem.' But what *is* the problem? In a column some time back, you mentioned that the next-to-last words of Gertrude Stein were, 'What is the answer?' But her dying words were, 'What is the question?' Isn't that what railroads ought to be asking themselves—before they, too, expire?" We don't think the railroad situation is quite that bad; nonetheless we are happy to pass on a few questions we have been hearing and rehearing recently.

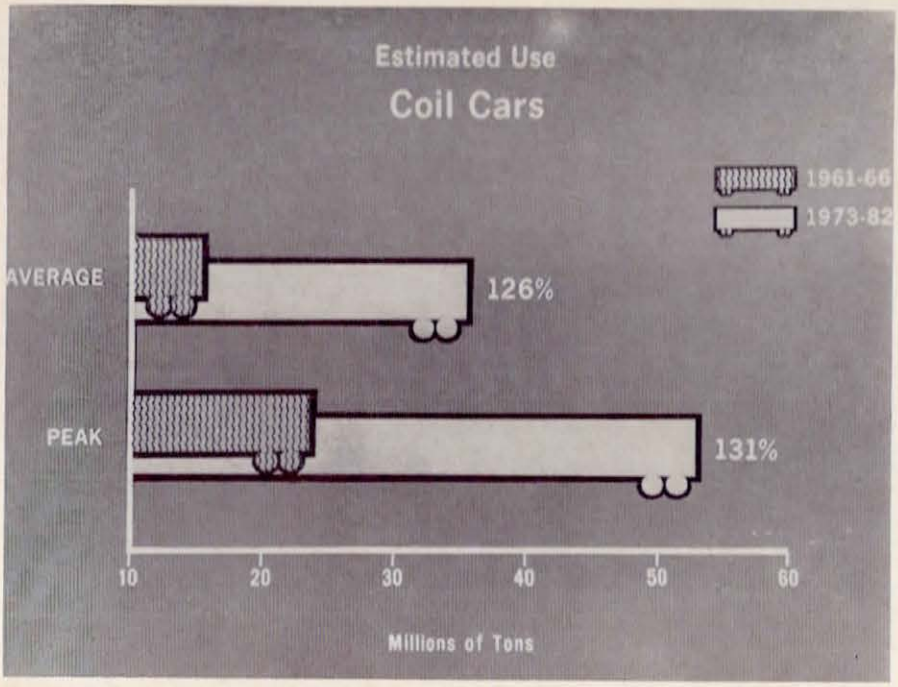
FLIVVER THINKING?—This one comes from a young railroad marketing man who clearly has been having his troubles with the operating department. "What other industry," he inquires, "lets the production department decide on the product? If Detroit had done this, wouldn't we have Model-T's today? They would be stamped '1968' models, but who would believe it?"

TON-MILE HAPPY?—A railroader with eyes fixed firmly (and sadly) on the bottom line asks: "Aren't we just a little bit ton-mile happy? Don't we boast overmuch about carrying the weight when the truckers are rolling away with the dollars? Another thing—haven't we abandoned the short-haul market to the truckers a little too readily?"

WHAT NEW BREED?—A railway supplier (looking at his own bottom line) wonders morosely: "Where are the railroads spending that $1.44 billion that they are now reported to have budgeted for capital investment in 1968? We sure aren't seeing any of it. And while I'm on the subject, what ever happened to that 'new breed' of railroader we've been hearing so much about? Can it be that his faith in tomorrow is still determined by yesterday's carloadings?"

WHY THE BAD IMAGE?—And from Washington: "The question isn't whether railroads have a bad image—but why? Is it only because the public misunderstands railroads on the passenger-train problem? Or is it because the public understands only too well that some influential railroad men aren't really railroaders at all?"

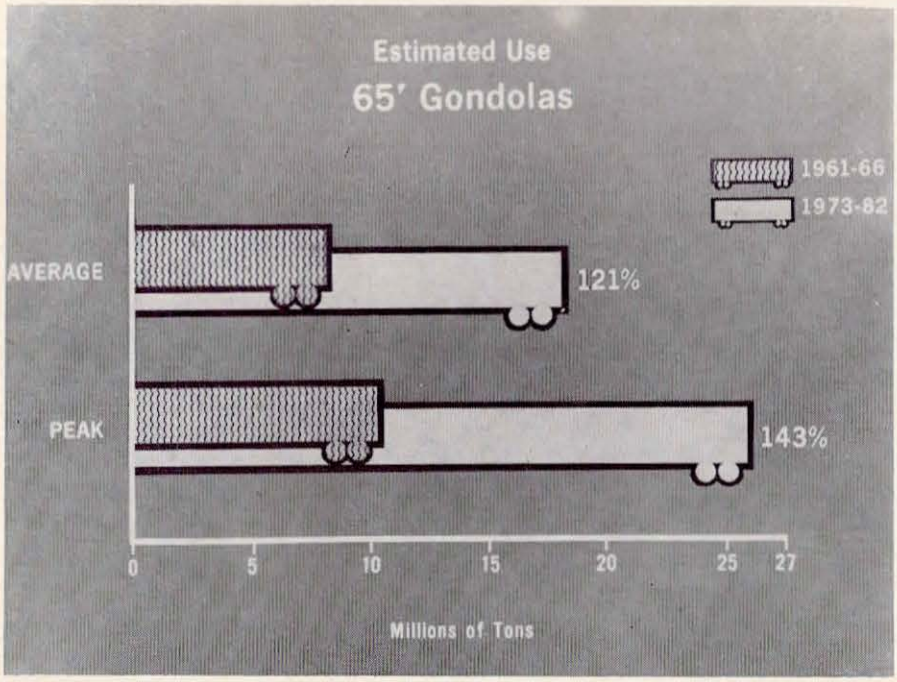
WHAT'S THE ANSWER?—Like all rhetorical questions, these suggest their own answers—and we don't buy all of them. Especially the last. The point isn't whether the questions are good or bad or even valid—but that they're being asked. Who is going to answer them?



COIL CARS represent the greatest potential for growth as U.S. Steel sees peak year for this type of traffic in the 1970s at level 126% higher than any year in past.

TELESCOPING COVER on Frisco gondola is one of few domestic attempts to produce such arrangement. Many barges and overseas freight cars have them.

Car needs for steel traffic of



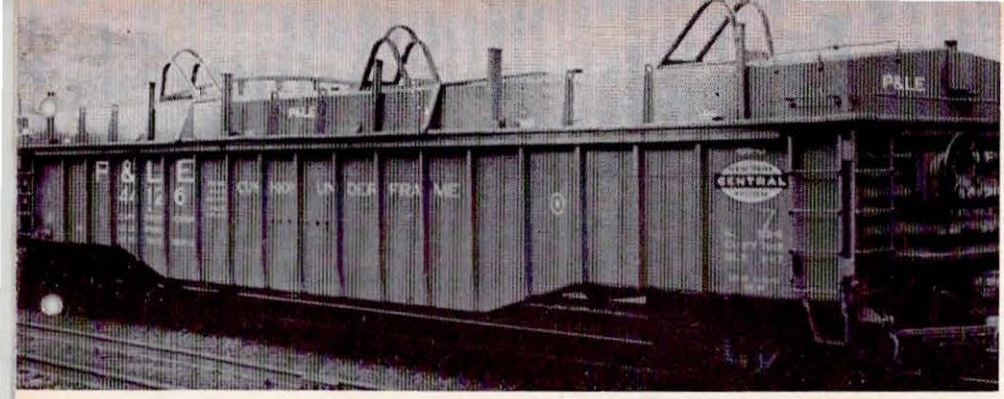
JUMBO GONDOLAS will be required in large numbers as more of steel mill output is in lengths greater than can be handled in today's conventional 52½-foot gondolas.

Industry-wide predictions intended as guide for roads aiming to maintain share of iron and steel shipments.

Projecting the future freight equipment requirements of their customers is rarely an easy task for railroad planners. And the customers themselves are often of little assistance—being unable to establish the quantities or features of cars appropriate to their needs for the years—or sometimes even the months—ahead.

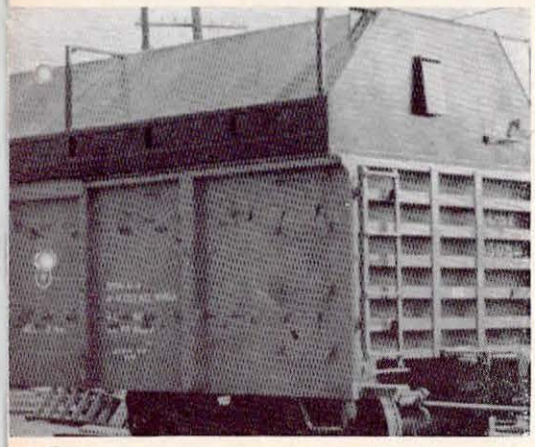
No longer must the future shipping patterns of at least one major segment of railroad traffic be fraught with such uncertainties. The steel industry—responsible for upwards of 25% of all railroad tonnage—has had its traffic "fortunes" told, literally, by U.S. Steel's Traffic and Transportation Department. Coupled with projections of the iron and steel traffic available to railroads a decade ahead have been USS warnings that only with a comprehensive, long-term equipment approach will the roads, in fact, be handling a substantial portion of the increased freight which should then be moving.

• **Show on the road.** To spread the word on future steel shipping needs, USS has had its "show" on the road—



LIFT-OFF COVERS block aisles and tracks in loading facilities, complicating operations. Most gondolas for steel service now have hydraulic cushioning.

INTEGRAL COVER, operable by one man and opening within clearance limits, has also been developed for this type of coil car.



'70s forecast by U. S. Steel

the railroad. The "show" is a carefully researched and documented presentation which USS traffic spokesmen have shown to executives and staff members of roads doing business with USS.

In scope, the USS study has been industry-wide, based on comprehensive statistics of the American Iron and Steel Institute combined with projections of total U.S. ferrous products output through the decade starting in 1973. As to its reception, Kenneth L. Vore, USS vice president—traffic and transportation, observes that the presentation "has proved to be a very effective program —a two-way street aiding railroads as well as U.S. Steel."

Vore stresses that the presentation is not an attempt to tell railroads what cars they must own for the steel industry. It is, he says, an effort to communicate quantitative and qualitative forecasts of the cars which could do much to maintain the railroads' competitive status 5 to 15 years from now. It does not appraise the adequacy of present ownership but indicates the growth factor for which the steel industry is preparing itself. Vore points out that no one is locked in by car specifications such as those recently issued by the American Iron and Steel Institute (RA, March 18, p. 44).

• **Communication essential.** Carrier-shipper communications are essential to assure that both parties appreciate their mutual problems. Four years ago USS prepared a thorough analysis of its car requirements at that time which put in focus some of these mutual problems. Between 1955 and 1960, for instance, while the steel industry was in the doldrums, railroads were increasing their ownership of cars suitable for steel shipments. And by the time steel output started a steady five-year climb in 1961, car ownership was on its way down and continued to decline for three years.

Just such a failure to coordinate car demand and supply can lose traffic, sometimes permanently, explains one USS traffic analyst. It has been only during the past two years, in fact, that a 15-year decline in their share of overall steel traffic was halted by the railroads. This leveling out has been marked by introduction of about 2,000 modern coil cars, 3,000 extra-wide 65-foot gondolas, and almost 1,000 covered gondolas having bulkheads and long-travel cushioning. USS takes a measure of pride in the fact that its suggested car features have been met in most new-steel-carrying cars.

• **What customer wants.** The USS features came out before, not after, the new equipment buying moved into high gear. Extensive use of the new cars has shown that relatively few of the special features required any revision. The same period has been marked by an almost complete cessation of the building of gondolas unsuitable for contemporary steel shipping needs.

With railroads responding to suggestions about car types, USS still feels there is much to be discussed about the fleet size necessary for future traffic. After its 1964 appraisal of the then current situation, USS Traffic and Transportation decided to look ahead . . . and tell the railroads what it saw. The "recent past" base in its studies, the 1961-1966 period, would be projected to a "future," the 1973-1982 decade. This outlook could then be tempered with customers' shipping requirement predictions and the traffic group's own predictions.

• **Meeting the peaks.** Inevitably, any long-term steel traffic growth will involve dips and peaks. USS finds that railroads have consistently failed to meet traffic peaks with adequate car supply in the past, resulting in reduced "market participation." As USS sees it, "you must be prepared to service customers in peak periods or they leave you and do not come back."

Going a step further, there are four facets to an adequate car supply, according to USS:

—Building new equipment;

—Reducing bad-order situation;

—Postponing retirements so that marginal equipment could be sidetracked in lean periods (matching the practice of the steel industry, which

keeps outmoded facilities on standby);

—Improving car utilization by speeding turnaround and heavier loading.

USS feels that such railroad programs as automatic car identification and the AAR-sponsored TRAIN computer network will fall far short of providing all the extra equipment for the long haul. USS market studies indicate the volume of traffic which will have to be handled if railroads maintain their present market participation.

• **Demand will grow.** Compared with the 1961-1966 period as a base, it is expected that demand for steel-handling cars in the 1973-1982 period will be marked by an increase in every category:

	Average year	Peak quarter
Coil cars	126%	131%
65-ft Gondolas	121%	143%
Covered Gondolas	76%	71%
Flat Cars	85%	95%
C/U Box Cars	74%	61%
Standard Gondolas	40%	40%

Observations of USS Traffic and Transportation on the steel-carrying cars covered by its specifications tell much about the requirements which will be placed on railroads. A decade ahead, for instance, it is expected that 70% of sheet and strip will be in coil form. A highly specialized coil car will be essential to maintain the present railroad share of this market.

Ten years ago, 30% of the structurals shipped moved in 65-foot gondolas. Ten years from now it is expected this will be 90%, a reflection of new steel industry marketing methods. The extra-long gons will also handle 90% of all reinforcing bars, 20% of the plates, 20% of all bars and 2% of all pipe. It is in this classification that the greatest percentage gain occurs—up 143% in a peak quarter.

• **Abandon tradition.** The first 65-foot gondolas anywhere were built in the early 1920s for intraplant service at the USS Homestead (Pa.) Works. Because of restricted clearances in the mill at that time, these pioneer cars were unusually narrow. This basic concept was duplicated in general interchange equipment for the next 45 years —long after the restrictions were gone.

Building recent long gondolas in compliance with AAR Plate B outline, rather than precedent, brought an immediate increase of 15 inches in interior width. When sides were increased to 66 inches, cube virtually doubled.

One specification for these jumbo gondolas is that permanent wood blocking be installed on the floor—a feature supplied by truckers and a penalty on rail shipment when it is unavailable. Such car features as unusually low sides also require special load securements to comply with AAR Loading Rules, simultaneously imposing a penalty of as much as $2.50 per ton.

STANCHIONS FOR WIDE PLATES
Converted gondolas fitted with stanchions (left) which support extra-width products diagonally (above) save money for mill loading the cars and make traffic captive for roads owning them.

• **Protecting the toughest.** Despite the fact that shipments of the steel industry involve about the toughest products which railroads move, almost half the AAR Open-Top Loading Rules deal with preparations for moving them without damage. USS feels that the tiedowns in these regulations may be a somewhat traditional approach to a new series of conditions. Shifting of the load en route may not be solely the fault of its preparation when loaded, for instance. Possibly there has been an exceptional roadbed condition, an unusual impact or an improper car.

The result of such a traditional approach has been to impose steadily mounting penalties against railroad shipments in terms of the dollars which must be expended at loading and unloading sites. It might be time, says

Some car specifications suggested by USS

Box Cars
Capacity—100 tons.
Minimum inside length—60'0"
Hydraulic cushioning—100%
Heavy-duty bulkheads or DF cross-members in 50% of cars.
Doors 16' wide and 10' high located opposite each other.

Covered Coil Cars
Capacity—100 tons
Mininum trough length—46' and capable of accommodating coils ranging in diameter from 30" to 90".
Hydraulic cushioning—100%
Crossmembers——Six per car
Cover—Integral design preferred

Cover Gondolas
Capacity—100 tons
Inside length—52'6".
Inside width—9'6"
Inside Height—60"
Hydraulic cushioning—100%
Bulkheads—Four per car, adjustable.

Jumbo Gondolas
Capacity—70 tons.
Inside length—65'6"
Inside width—9' minimum.
Inside height—66"
Hydraulic cushioning—50% of cars.
Drop ends—75% of cars.
Bearing pieces on floor and sides.
Floors—100% all steel.

Regular Gondolas
Capacity—100 tons
Inside length—52'6"
Inside width—9'6" minimum.
Inside height—48"
Hydraulic cushioning—100% of cars.
Drop ends—25% of cars.
Floors—50% all steel.

Flat cars
Capacity—50% 70 tons
50% 100 tons
Length—50%—53'6"
50%—75'0"
Hydraulic cushioning—50% of cars of each length.
Bulkheads—25% of cars.

Open-Top Hopper Cars
Capacity—70, 100, and 125 tons.

Maximum Dimensions	70 Tons	100 Tons	125 Tons
Length	45'10"	53'10"	60'0"
Height	11'1"	12'3"	12'3"
Width	10'6"	10'8"	10'8"
Wheel Base	39'8"	50'0"	50'0"

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Circle 34 on coupon page 55

WALTER TAFT

WATCHING WASHINGTON

BLAST ON RAIL-OWNED CONGLOMERATES — Three members of the Senate Commerce Committee, including its chairman, Senator Warren G. Magnuson (D.—Wash.) have seized upon the Committee's clearance of a relatively minor bill to point up their view that the ICC should be more concerned about non-railroad investments of railroads and railroad affiliates. Senators Vance Hartke of Indiana and Philip A. Hart of Michigan, both also Democrats, were the Committee members who joined Magnuson as Commission assailants. Technically, their statement was a dissent from the Committee majority's report clearing for Senate action a bill, S 757, to ease requirements for reporting railroad valuation data to the Commission.

AN ICC RECOMMENDATION—The majority report was filed for the Committee by Senator Frank J. Lausche (D.-Ohio). The proposed relief from reporting requirements would be accomplished by amending the Interstate Commerce Act's Section 19a. The amendment would eliminate some mandatory requirements, leaving the Commission with power to call for the same reports if it needed them. The change has been favored by the Commission for sometime.

NO PLACE TO GO—The Commission assailants think federal regulation might well be extended to railroad investments in non-transportation enterprises. That could remove all freedom to diversify, since regulation is already tight in the other available diversification area, i.e., common ownership of different forms of transport.

"RUNAWAY" CONGLOMERATES—That's what the three senators called railroad undertakings to join the diversification movement under way in industry generally. They cited the non-railroad investments of affiliates of the Chicago & North Western, Kansas City Southern, Santa Fe, Penn Central, Missouri-Kansas-Texas, Bangor & Aroostook, Southern Pacific, and Northern Pacific. With these things going on, the Commission should not be agreeing "to put on blinders and receive less information from the carriers," the Magnuson-Hartke-Hart statement also said.

THE "SERIOUS" QUESTIONS—The statement went on to assert that at least two "serious" questions are posed by this "rail conglomerate situation." They are: Under what circumstances should a regulated industry be allowed to evolve into large conglomerates? If the railroads are permitted to become conglomerates, what controls should be imposed?

USS, to establish the impacts against which shippers must prepare their loads and to publish loading requirements in these terms. Such specifications might be prepared by the AAR Research Department. When such impacts would be exceeded, it would be solely a railroad responsibility.

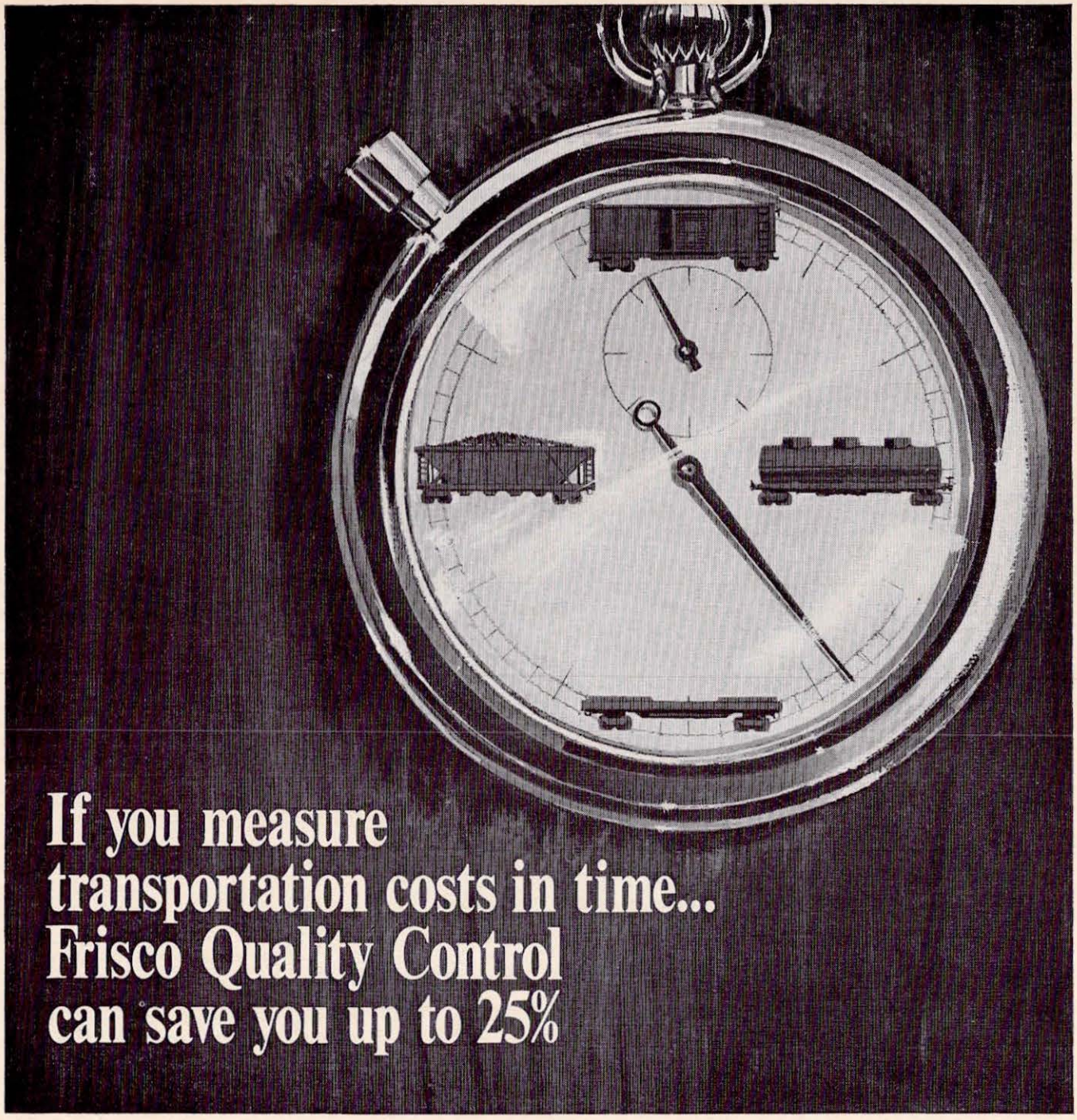
One of the recent developments which is encouraging has been the growing number of gondolas of all types with hydraulic cushioning. In its specifications, USS sees the need for half of future jumbo gondolas with this feature but seeks it on all box cars, covered and regular gondolas.

- **Wood-lined ends.** In the regular gondolas, in addition to the cushioning under the car, it is desired that ends be completely wood lined, an inexpensive energy absorber which acts as a back up for the basic system. Like the jumbo cars, the 52½-foot gondolas should have higher than traditional sides. This again reflects the greater bulk of products made from high-strength steels which are growing steadily in popularity. USS sees this car continuing as a basic "workhorse."

The covered gondola with interior bulkheads is expected to be moving 20% of all tinplate, 15% of all sheet and strip, and 75% of all bars a decade ahead. Presently, most bars move in open cars and this change in shipping pattern is something which, USS stresses, must be reflected in railroad plans. Covers for these cars are another feature found to need further refinement.

- **Flat car of future.** Flat cars, half 53½- and half 75-feet in length, will be moving 8% of all structurals and 30% of all plates in 1977, it is estimated. The 75-foot car is proposed as the longest at which no significant reduction in deck width need be made for general interchange service. The wide-deck requirement reflects the growing size of the sheets which mills are, and will be, producing. USS is currently well satisfied with stanchion cars which are handling extra-width materials.

Box cars are to be handling 15% of sheet and strip and 80% of tinplate for steel shippers ten years from now. Features for such cars, and for the coil cars were the subject of a recent USS study of lading damage (RA, March 18, p. 36). Satisfaction with second-generation coil cars has been so overwhelming that the "ideal" coil car, outlined in the USS specification, will soon displace all its predecessors of the 1955-1960 period. For either box or specialized coil cars, it is expected that coils will be 30 to 90 inches in outside diameter and weigh up to 100,000 pounds individually. Most coils, however, will be in the intermediate diameters, rather than either extreme. ■



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Circle 23 on coupon page 53

JULY TRAFFIC POLL

PROPOSITION

Many railroads have installed or are installing car-location methods and devices. Some railroads have invested heavily in improved communications and data-handling facilities, one aim of which is to improve car locating. The July Traffic Poll requests shippers' comments on the key point of these improvements—i.e., how well they meet the needs of railroad customers.

QUESTIONS

1) **Do you receive reports of car movements automatically, without need to ask for car-location information?**
   YES ..... 12 NO 59

2) **How do you rate railroad car tracing in general?**
   Excellent ..... 5 Satisfactory ..... 44 Unsatisfactory .. 28

3) **How does railroad car tracing compare with similar services performed by motor common carriers?**
   Better ..... 21 Same ..... 27 Worse 23

4) **What, if any, changes in railroad car-tracing procedures would be most helpful to you?**
   For answers see the accompanying text.

NOTE: Poll respondents did not answer all questions.

Car tracing gets OK from shippers

Traffic managers, however, have many suggestions for improving the railroads' performance; basic need is for real-time data.

Railroads do a satisfactory job of car tracing, according to most respondents to this month's Traffic Poll. However, a large number of industrial traffic managers think railroad car tracing is unsatisfactory. Only five shippers said the railroad performance is excellent. (See tabulation of answers to Question No. 2 in the table above.)

But, when compared with similar services by motor common carriers, railroads did not come off so well. Only 21 Poll respondents thought railroads did a better job. Twenty-three traffic managers said railroads were worse than motor common carriers.

• **A blessing.** Allen K. Penttila, director of traffic and transportation, Evans Products Co., Portland, Ore., called for some revision in railroad car-tracing procedures. "A greater degree of standardization of car status on computer printouts would be very helpful," he said. "There is the standard AAR format—but this has been supplemented by many railroads in different manners of designations. It's certainly a blessing and a far cry from what it used to be to be able to get location data within moments after inquiry. We're looking forward to automatic car identification for even better and more accurate information."

Joseph L. Miller, manager of traffic and material services, Birdsboro Corp., Birdsboro, Pa., concurred. "Our tracing experience with several of the major railroads who have new data-handling facilities," he said, "has been excellent. Quick and accurate information has been furnished each time."

One Poll respondent, who asked that his name not be used, said: "Railroad tracing of cars is generally good." He had one complaint, though. "Those cars which become bad order and are sent to the rip track without advising consignee are the ones that irritate us."

Warren J. Sullivan, director of traffic, Allied Chemical Corp., New York, N. Y., had several suggestions to make. "The railroad automatic car tracing programs now operational," he wrote, "are satisfactory only to the extent that they eliminate numerous telephone calls to individual railroads. The daily reports are cumbersome and over-long. They are ineffective to the degree that those lines not having automatic reporting systems create a void when cars leave the reporting lines.

"A resolution to this problem," Sullivan continued, "could be establishment of a centrally-located computer operation, and implementation of a tape file containing all car numbers now cataloged in the Railroad Equipment Register. This would permit industry to key in directly those car numbers requiring tracing, and eliminate voluminous, unnecessary reports. Apparently, the railroads are working toward this objective."

P. T. Catalano, traffic and distribution manager, Steelcase, Inc., Grand Rapids, Mich., said he and his company like the Louisville & Nashville and Southern Railway car-tracing systems. "The idea of being able to dial on a TWX direct and getting an answer in a matter of seconds," he wrote, "is a great timesaver and convenience. Our customers like it, too, and are always amazed how fast we can get them answers."

• **Too much time.** Among those saying that railroad car tracing compares unfavorably with the procedures followed by motor common carriers was G. J. Mason, director of transportation and distribution, Wyandotte Chemicals Corp., Wyandotte, Mich. "It is still taking too much telephone time to obtain car records," he said. "While the computers have improved car location on a current 24-hour basis, it is difficult to obtain a record on a car movement of 48 hours or more." Improvement can also be made, he added, in the approach of personnel: "some people are just too short and snappy."

A similar complaint was registered by John T. O'Leary, traffic manager, Harshaw Chemical Co., Cleveland, Ohio. "Railroads should employ people with knowledge and a willingness to help," he wrote. "All we get is smart answers and complete indifference. . . . Nobody cares whether cars move or not."

N. C. Zollar, general traffic mana-

(Continued on page 50)

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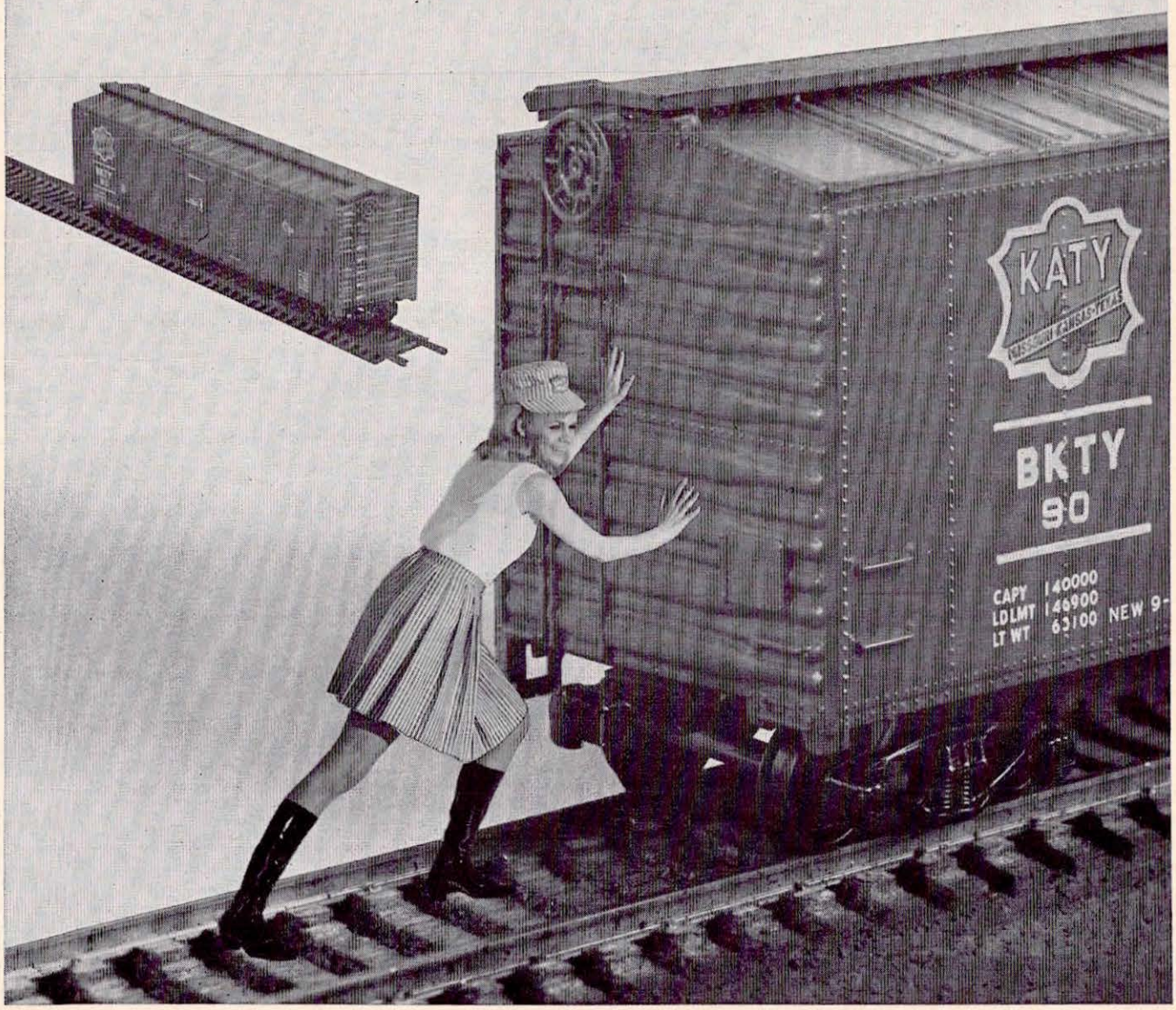
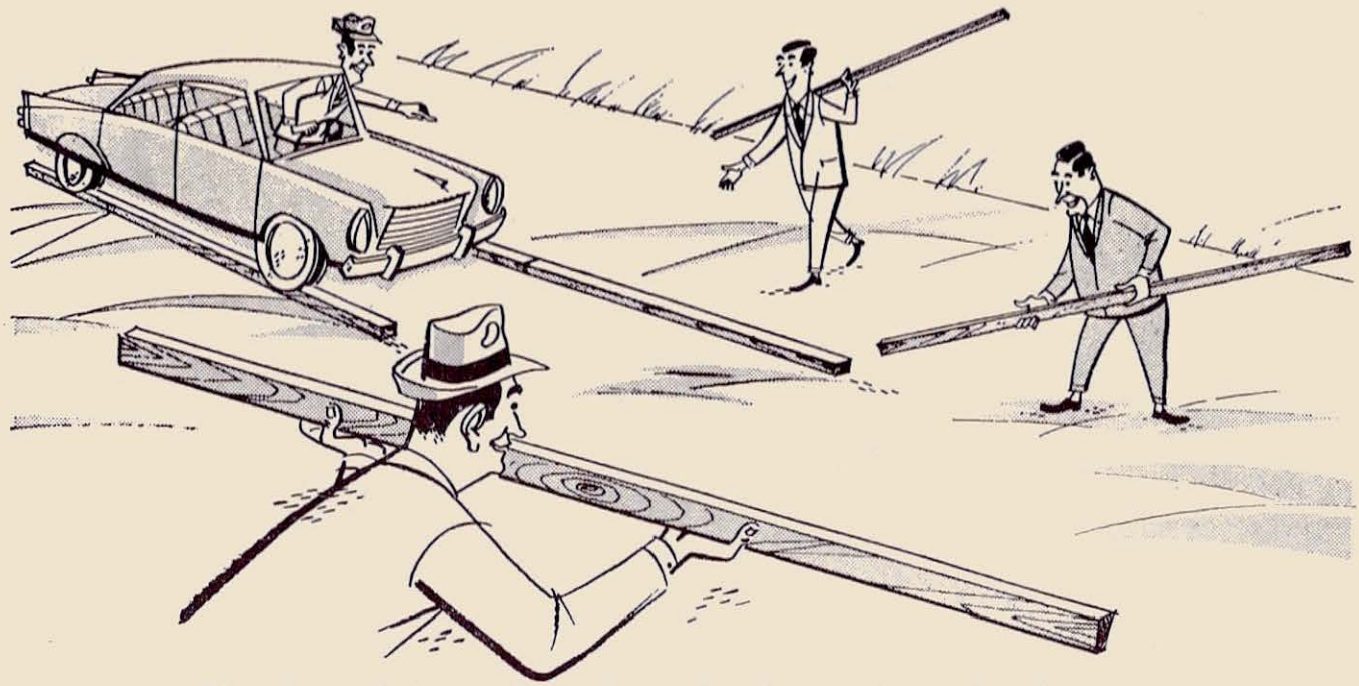


Circle 22 on coupon page 55

"If we didn't have trains, they



"Lay the two-by-fours out—parallel, so the rims can ride on them"

How Bob Smart Invented the Train – a fable

Kepunkata-poop, kerpunkata-poop-poop-*bang*. "Nuts," said Bob Smart as he coasted off the turnpike, got out and started tieing his handkerchief to the aerial.

A blue Buick pulled off just ahead. Out climbed Harry Hart, a neighbor. He opened the trunk, pulled out a rope. "How about a tow home, Lucky?" said Harry.

That night Bob lay awake to all hours. "What luxury," he thought. "I hardly touched the steering wheel. Harry did the work." The mental gears clattered and clashed.

Next day Bob passed a pair of close-coupled used cars heading south, noted the special bumper hitch. The gears meshed. "Eureka," he cried.

That afternoon, Bob phoned Harry. "I know you'll think I'm out of my mind," he said, "but how about me towing *you* home tonight? Eh? Fine! Confidentially, I think I may be on to something."

"Well, how was it Harry?" said Bob as he removed the hitch that night.

"You can do it every day from now on," said Harry, snapping his brief case shut. "I got my homework done. How about a set of tennis after supper?"

"We'll take turns pulling each other," said Bob. "Think of all the gasoline and bother we'll save. Actually, that bearcat engine of mine could pull *two* cars."

Bob stared at Harry. Harry stared at Bob. "Let's have a drink," Bob said.

"I call it a 'train'," said Bob a few weeks later as he drew up at the Patent Office, pulling three cars behind him. "You know—like a 'train of thought.' Don't know why someone didn't think of it before. Only one driver has to steer and step on the brakes. Half the guys in town want to join the train. We gotta get organized."

At the high school auditorium the following night,

would have to be invented"

Bob rapped for attention. "Ladies and gentlemen," he said, "we haven't scratched the surface of this thing yet. For instance, why should one big powerful car pull two or three other big powerful cars? It's ridiculous. What we're going to pull is some of those lightweight foreign cars. (Applause.) We'll get to town faster and easier and we'll save a lot more money." (Long applause.)

It was just as Bob said. But still he wasn't satisfied. "Why should anyone have to steer?" he thought. The gears were grinding dangerously. Bob went to the medicine chest for aspirin.

"How about deep ruts in the pavement to guide the wheels?"

"They'd fill up with water and freeze," replied Reason.

"*Inverted* ruts—that's the answer!" Bob whooped and rushed to the phone.

"Harry, call all the fellows and tell each one to pick up a two-by-four at the lumber yard and meet me right away at the school ground."

By the time everyone arrived, Bob had the tires off the wheels of his car.

"O.K., fellows, start right in front of the wheels and lay the two-by-fours out—parallel, so the rims can ride on 'em."

"Look, no hands," cried Bob as he rode along the two-by-fours, arms out the front window.

A cheer went up. "We'll run two-by-fours all the way into the city—and then no one will have to steer. We'll call it a 'rail-road.' "

Time passed and Bob's idea swept the nation. And the mental gears kept slipping into place. Steel rails replaced wood, engines and steering wheels were left out of the towed cars, all the brakes were hooked up into one system, an impact coupling replaced the bumper hitch.

Bob was honored by a big dinner in Washington. Mayor after mayor praised Bob to the skies for saving his city. "Our parks were turning into parking lots, our biggest buildings were garages, and our traffic was fast becoming motionless," was what they all said.

"I just can't see why nobody thought of the train and the rail-road before," was Bob's modest reply. "Its so *logical.* You don't need all those drivers, you don't need all those engines. You take up so little room—a rail-road is so narrow. And nothing, but nothing, moves along so easy as a steel wheel rolling on a steel rail. Think of all the savings!

"And we haven't seen the half of it yet. We can build special cars to haul coal, lumber, steel, fruit, vegetables —and even new automobiles out of Detroit. Why, I predict that the freight train will become even more important than the passenger train."

There was a buzzing at the tables. "A freight train?" Eyebrows lifted, shoulders shrugged.

"Have I gone too far?" wondered Bob.

Then he remembered what Winston Churchill said when asked how he ended a speech.

"When it's time and I come to a group of words containing both a subject and a predicate, I sit down," replied Churchill.

Bob sat down.

Recovering, his listeners rose to give him a standing ovation. They were five hundred minds with but a single thought: "Why didn't someone think of a train and a rail-road before?"

Moral: If the train had come along *after* the car, truck and plane, it would have been hailed as a great step ahead. —George Dusenbury

• • •

This fable has been reprinted all over the U.S.—and as far away as France (where it was re-illustrated to show *French* cars, of course).

It first appeared in weekly RAILWAY AGE, where almost everything new in railroading first appears—new industry promotion ideas, new management ideas, new maintenance ideas, new equipment ideas . . .

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the transportation weekly

(Continued from page 46)
ger, Lincoln Electric Co., Cleveland, Ohio, had some changes to recommend in current car-tracing techniques. Among them was establishment of a national car location center into which a car number could be dialed for immediate information on the whereabouts of the car. "This," he said, "would be the utopia we all seek." Zollar also wants a system whereby he is notified immediately when a car is bad ordered, shopped or no billed.

● **Where is the car now?** F. J. Fruechtemeyer, traffic manager, Andrew Jergens Co., Cincinnati, Ohio, said that present car-tracing methods tell a shipper only where a car was, or at what time it passed a certain check point. "We need to know," he stressed, "where the car is, or when it will arrive at destination."

Tracing a car for the purpose of expediting it is a fruitless task, wrote Francis H. Watson, Jr., traffic manager-rates, Sterling Drug, Inc., New York, N. Y. "Information is so slow in forthcoming that by the time you get it you cannot do anything about improving the situation. Another matter that bothers us no end is finding out through tracing that a car went bad order. We have on our bill of lading a statement to the effect that when this happens 'telephone us collect.' We have had numerous bad order cars in the past five years—and we never received one call."

● **Computers wanted.** "Some railroads do an excellent job in tracing, where others take several days to advise us about their findings," said George V. Foley, general traffic manager, Esco Corp., Portland, Ore. "The lines that have computer tracing are able, in most cases, to give an immediate answer. But in some cases railroad personnel have failed to feed into the computer the car passings while on line. . . In varous instances the computer had no record of the car, even though later it was found the car or cars were actually on the respective lines from 24 to 48 hours prior to our requesting tracing information.

"We believe there is still room for improvement, but we congratulate the majority of railroads for the substantial improvement in tracing that has taken place in the last year."

Another mention of the value of computers in car tracing came from Norman F. Smith, assistant traffic manager, Godchaux-Henderson Sugar Co., Mobile, Ala. "Railroad car tracing is improving," he said, "as computer systems are installed and refined. However, a real problem exists on cars moving without waybills, or cars that have become separated from waybills. Often many days are lost in transit time while such no-bills drift around as empty cars. Also, we are almost never informed of a bad order delay on our loads."

R. E. Alexander, vice president, transportation-distribution, Pillsbury Co., Minneapolis, Minn., said that carriers with computerized tracing programs normally offer the best service. "However, timing problems are created if local offices have restrictions on the number of entries per day that they can enter into their headquarters computer. For those carriers who are computerized, railroad tracing is better than motor common carrier tracing. Without computerization, we find rail and motor carrier tracing performance about equal. . . There is need for more uniformity in reporting as well as increased accuracy of reporting car movements. Both of these needs are now being worked on by various committees—primarily through the National Industrial Traffic League. Over the long term, an exception reporting basis is most desirable. We want to be able to establish standards over given routes and have the rail carriers report to us when the car is not moving according to the established standard." ■

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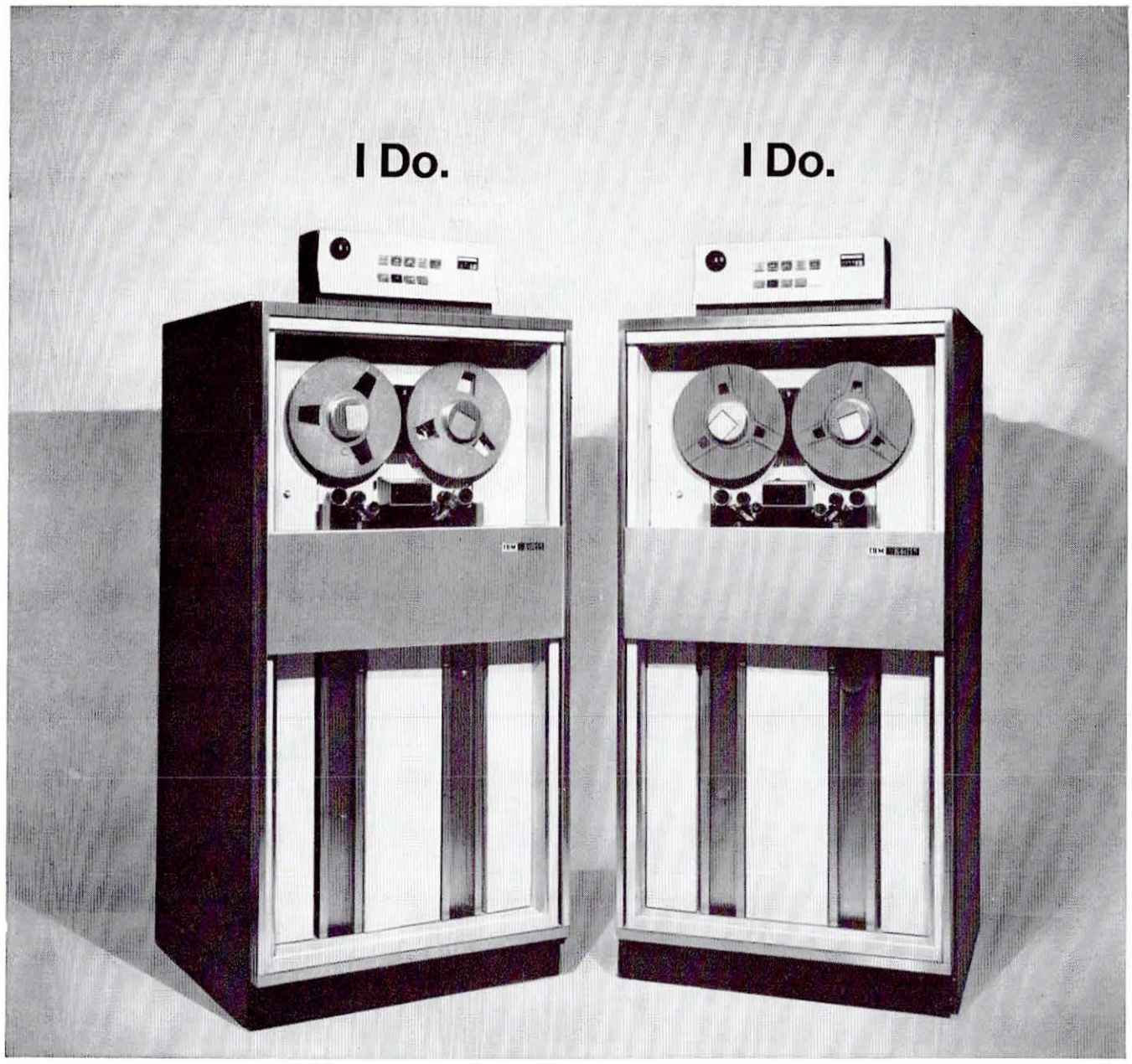


Can a computer from Ferguson, Mississippi find happiness married to BRAINFARE?

One of these times, an Illinois Central man may make you a proposal: marriage of your computer to ours! For two computers can live cheaper—and better—than one.

It started when a paper maker built a plant in Mississippi. IC put some futuristic theory into practice. The Mississippi computer was wedded—electronically—to IC's in Chicago. Now they "talk" directly to one another.

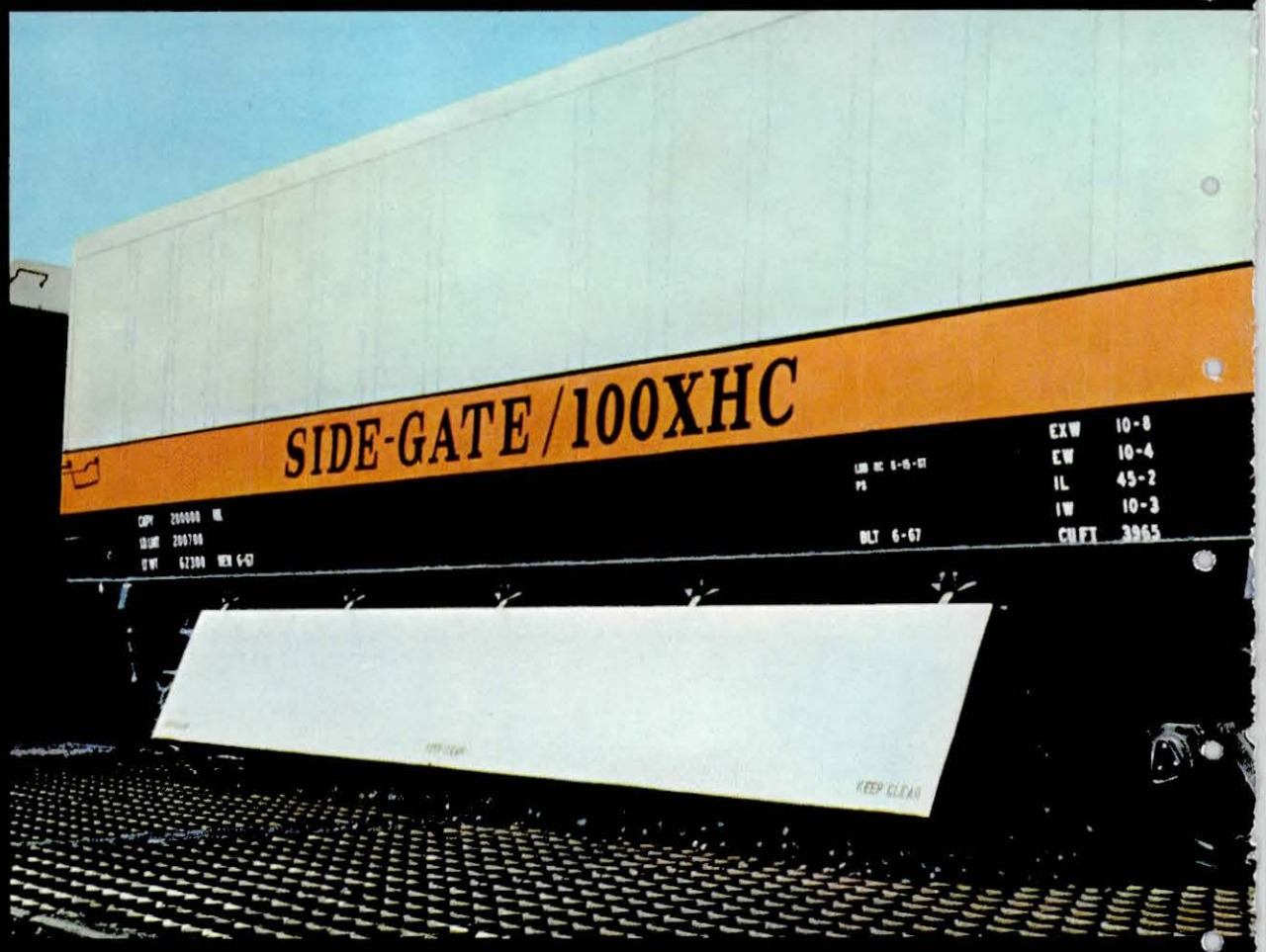
If you could listen in you'd hear about how many cushion underframe box cars are needed for next Tuesday. About the high-sided cars that bring wood chips from the woods. About countless car numbers, car weights, waybills and everything else that controls the movement of thousands of cars to and from the plant via IC.

The computer "wedding" is another way BRAINFARE, the IC's combination of human and electronic brains, solves problems for our customers. Your computer can enjoy this kind of marital bliss. It's OK for you to call the IC for a proposal. After all, this is Leap Year.

So phone Howard Powell, our Traffic VP, at (312) 922-4811, or write 135 E. 11th Place, Chicago, Ill. 60605.

Main Line of Mid-America **ILLINOIS CENTRAL RAILROAD**

Circle 24 on coupon page 55


SIDE-GATE / 100XHC
EXW 10-0
EW 10-4
IL 45-2
IW 10-3
CU FT 3965
BLT 6-67

There's probably one other company that could build this car.

The second time.

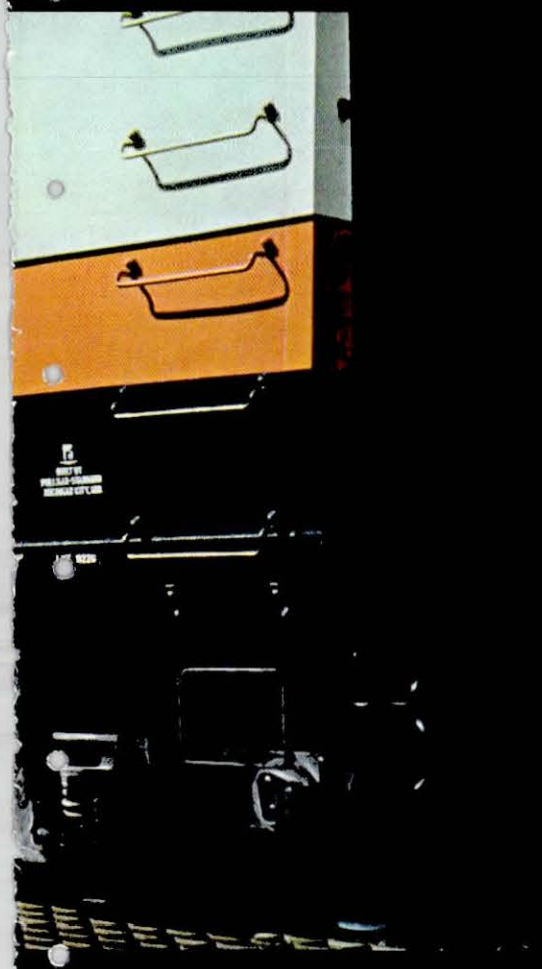
Developing a side-discharge system that automatically empties a whole coal car in seconds is a problem few carbuilding companies can ably solve.

Pullman-Standard can.

Our new Champ Carry Technical Center is more than a showplace of railroad progress. It is a brain center for the carbuilding industry's finest scientists and engineers, whose problem-solving capability is augmented by the most advanced computer technology.

This is the reason Pullman-Standard was first with this revolutionary side-discharge hopper car.

Another company may build it, too. The second time.



Pullman-Standard
WORLD'S LARGEST RAIL CAR MAKER
200 South Michigan Avenue, Chicago, Illinois 60604

A Division of Pullman Incorporated

C&EI can show you how to scrap most of your truck fleet

and come out ahead on shipping costs.

As gross volume increases, it's easy for your motor fleet to escalate out of proportion to net revenues. And if it seems you've become more of a motor carrier than the manufacturing company you intended to be... it's high time we got together.

We'll review your shipping operations with you, and perhaps recommend greater use of Piggyback services. Such as our Plan 2½, where we provide the trailers, you load them and deliver to our railroad ramp.

We haul to the destination point where you pick them up for local delivery.

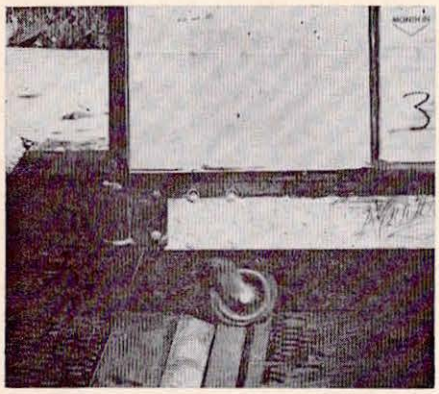
Think about it. Then, after you have a pretty good idea how much you could save by scrapping much of your costly equipment, call us. We're ready to roll whenever you are.

CHICAGO & EASTERN ILLINOIS

C&EI

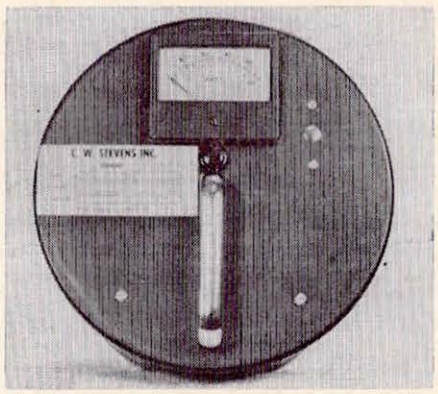
Circle 26 on coupon page 55

NEW PRODUCTS REPORT



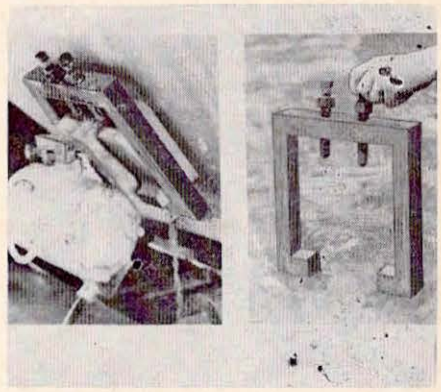
Flangeway filler (RA-1)

Factory vehicles can roll smoothly across railroad tracks having a new rubber-and-steel device that fills the flange gap at the inside of the rail. A filler strip levels the slot along the rail to provide a smooth crossing for hand trucks and other small-wheeled vehicles, yet deflects under the weight of a railroad wheel flange. A crossing with the new filler strip will cut costs by reducing maintenance to fork lifts and other plant vehicles. *Goodyear.*



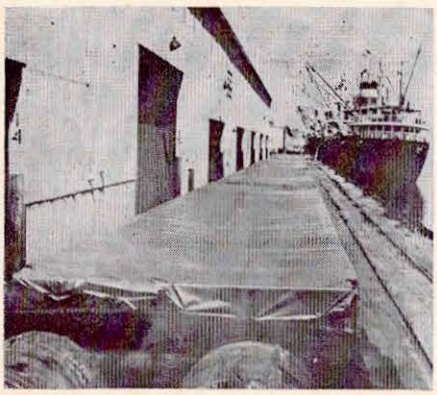
Hopper-car bracket (RA-2)

The sonar principle for determining the levels of fluids and bulk materials in silos, elevators, bins and hoppers is used in the portable Sonargage instrument, Model 2300. Its aluminum case is 10 in. in diameter, 12 in. high. Weight, with batteries, is approximately 8 lb. All components of the instrument, which is said to have reduced manual sampling time of material levels up to 60%, are solid state. Its maximum range is 150 ft. *C. W. Stevens, Inc.*



Level indicator (RA-3)

The lock ring of a steel surround bracket is said to prevent vibrators from "hopping" or dislodging themselves from wedge-type covered hopper-car brackets and to insure permanence of the railroad car vibrator installation. The bracket, which is held in place by tightening two lock bolts, permits the use of an air or electric vibrator wherever a temporary or a semi-permanent installation is needed. *Cleveland Vibrator Co.*



Coated-fabric covers (RA-4)

Open-top gondolas carrying steel coils are being protected with Coverlight HTV, a coated fabric embodying a new nylon weave which gives the covers a tear strength about "50% greater than that of conventional coated fabrics of equal weight." Completed covers have tie-down lines and provision for brake wheels, side ladders, removal of puddled water, and cars of different height loads. They can be installed and removed by two men in 10 min. *Brown & Brown, Inc.*

Drag conveyor (RA-5)

Standard widths of the V-Con drag conveyor for moving free-flowing granular or pelleted materials range from 18 to 42 in. Maximum grain capacity, 80,000 bushels per hour. Because of its construction, clean-out operations result in little or no contamination when various materials are carried. Location and operation of inlets and outlets is flexible. The conveyor is suited for use as an under-track unloader for hopper cars. *J. B. Ehrsam & Sons.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 55 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5

NAME ..... TITLE.....

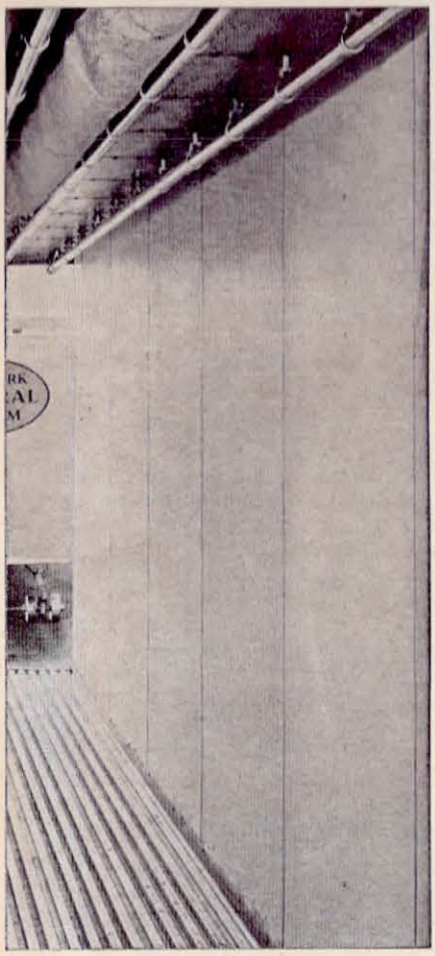
COMPANY .....

ADDRESS .....

CITY ..... STATE..... ZIP.....

● **Inquiries can be processed only if title and company are shown.** 7/29/68

GLASBORD® Liner SERVES TWO MASTERS



1. SHIPPERS !

Protects YOUR cargo

2. OWNERS !

Keeps YOUR units in service

High strength, light weight GLASBORD is the best liner for piggyback reefer trailers and containers. ACCEPTED BY M.I.D.

Write for samples and literature kemlite

KEMLITE CORPORATION
Transportation Products
101 N. Republic Ave. • Joliet, Illinois 60435

Circle 27 on coupon page 55

Car tracing pays off

(Continued from page 33)

tion of CN Telecommunications message traffic is commercial in nature (CN and CP are the Western Union of Canada).

As might be expected, these message-switching computers operate 24 hours daily, seven days each week, the year around. Most railroads have duplicate facilities, so that one processor is always on-line. Many roads use the back-up or standby computer for batch processing. However, arrangements are such that it can instantaneously take over from the main unit.

• **Good data base.** Increasingly, railroads have the facilities and equipment for mechanized or computerized car-reporting systems. Most importantly, they are establishing a good data base for such systems.

The trend is for input to the computer as events occur, such as a train arrival at or departure from a yard, delivery or receipt of cars in interchange, pulls or spots at shippers' or receivers' docks, at rip tracks, and so forth. Many roads also indicate that they are updating their car files on a continuous basis. Thus, with the development of more advanced inquiry techniques and the increased capability with third-generation computers for random inquiry, accurate car-movement information is becoming more and more readily available.

• **Payoff for customers.** The big payoff for the customer, shipper and receiver, is that railroads are able to provide more accurate car-movement information on demand.

Typical of the type of car tracing service for shippers is that furnished by Louisville & Nashville. L&N provides direct car-location inquiry, daily fleet tracing and auxiliary fleet tracing.

Direct inquiry is initiated by the customer using any authorized Telex or TWX terminal anywhere in the U.S. Inquiry is made by means of punched paper tape. Location information can be obtained on as many as 40 cars in a single inquiry. There is no limit to the number of inquiries that can be made by a shipper in a day.

Fleet tracing is computer-generated on a once per-day basis. By pre-arrangement, a list of all cars owned or leased by a shipper is stored in the computer. The computer automatically generates a report to the shipper indicating current location (and other pertinent data) of all of his cars currently on the L&N.

Auxiliary tracing is like fleet tracing

Special Notice

Everyone interested in railroads and their historical development will want to own two unique volumes published in commemoration of the 100th Anniversary of the OFFICIAL RAILWAY GUIDE.®

These two volumes are:

A FACSIMILE EDITION OF THE JUNE 1868 ISSUE

(Now in its 4th printing. Only one original is known to exist.)

and the

100th ANNIVERSARY EDITION PUBLISHED IN JUNE 1968

(Its extra print order is nearly exhausted.)

Each of these special editions has an historical preface and an appendix showing present affiliation of the 350 railroads listed in the first OFFICIAL GUIDE, plus other features of great interest to railroad historians.

PLEASE NOTE that regrettably long delays occurred in mailing the June 1868 issue due primarily to extraordinary demand. A 4th print order has finally caught up with demand, but less than 500 copies remain.

The June 1968 issue is in **very short supply,** with less than 200 copies remaining.

AS ORDERS CAN BE FILLED ONLY WHILE THE SUPPLY LASTS, PLACE YOUR ORDER NOW TO INSURE A COPY.

Prices are:

June 1868 issue..... $3.00 each
(To be mailed about July 30th)

June 1968 issue.. ... $5.50 each
(Immediate mailing while in supply)

Both issues ..... $8.00 per pair

New York State residents add sales tax.

Send check or money order to:

NATIONAL RAILWAY PUBLICATION CO.
436 West 33d St., New York, N.Y. 10001.

Circle 28 on coupon page 55

in every respect except that surveillance is on a limited number of cars selected by the shipper. Such surveillance continues for a fixed number of days only, or until a pre-determined event occurs.

Each of the three methods, reports an L&N spokesman, provides essential information to the shipper for such purposes as (1) inventory control, (2) production control and scheduling, (3) customer service and (4) utilization of owned and leased freight cars.

● **Sales-office reports.** An important feature turned up by the Railway Age survey is that it is an exception for traffic or sales offices to receive jumbo computer print outs of all moves on all cars. Most railroads are making sorts based upon cars destined to or originating in traffic- or sales-office territories.

C&O/B&O has gone one step further in a pilot project in quality control. This project provides three commercial service reports that cover overall dock-to-dock performance, interline performance and salesman's performance. The salesman's report is aimed at helping him know, ahead of time, when his road is failing in service so that a shipper's transfer of his business may be imminent.

● **Shippers urge good performance.** A number of large users of rail service have also installed their own computerized car-reporting systems. Ford Motor Co. and Union Carbide Corp., to name two, now have their own computerized car-location systems for better car utilization and production scheduling. UC uses its system to measure the performance of carriers and routes through exception reporting.

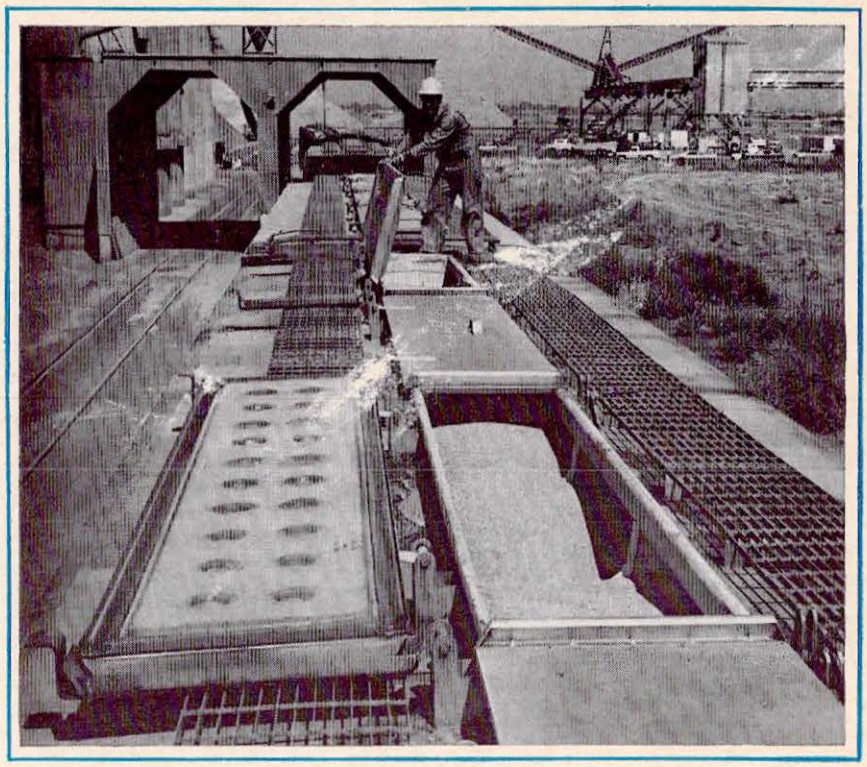
While they don't wish to be quoted, railroad men admit that such car-reporting systems as have been set up by shippers have spurred railroads into greater activity in this area.

Other pressures are being generated within the railroad industry itself—pressures primarily concerned with the 1970 target-date for going operational with ACI and TRAIN, Automatic Car Identification and the TeleRail Automated Information Network. Like the introduction of third-generation computer technology, introduction of these new systems also promises to put car-location and car-utilization on a new and higher plane.

As of mid-1968, however, much remains to be done by the industry before such systems go on-line. There is a lot more to utilization of Sylvania's KarTrak ACI system, for instance, than the mere application of labels and installation of scanners. The decisions have to be made in such areas as data use—whether there will be direct input of car-movement data from ACI to computers, on a centralized or regional basis. At this point, about half the roads participating in the Railway Age survey plan direct input. Most of the rest are still working on the question.

At the same time, a number of roads are beefing up communication systems, with emphasis on microwave. It's expected that 35,000 route miles of microwave may be in service by 1970, with the total climbing to 50,000 miles by the mid-70's. Among the major current additions: Billings-Seattle on Northern Pacific, to complete a St. Paul-Seattle line; and Wellington, Kan.-Silsbee, Tex., on Santa Fe, a 712-mile line branching from ATSF's Chicago-Los Angeles line. ■

ONE MAN can do it...



MFG hatch covers for hopper cars!

Not only light weight—so one man opens and closes them easily—MFG hatch covers are:

- corrosion proof, resist sweating
- dent-proof, rust-proof, warp-proof
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Here's the latest forward stride in rail freight handling . . . hatch covers in round or long trough shape to fit your particular needs. NOW AVAILABLE in 20″ and 24″.

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For specification sheets, ready now. Write:

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Put Great Danes in your piggyback fleet and get the rugged strength a railroad needs.

Great Dane piggybacks are built rugged to withstand severe TOFC service. The front end is constructed as a tough one piece unit with six steel hat section posts extending the full height of the trailer. Ten-gauge beveled steel front corners provide additional strength. A four-foot high steel interior bulkhead backed by ¾" plywood lining wraps around from side post to side post, protecting against cargo shifting damage.

An extra strong and rigid rear end protects lights, hardware, doors and door hinges. Massive bottom corner castings take dock shocks and distribute them evenly to the side rails. Plymetal doors swing on ten high-strength, recessed hinges. The lower eight hinges are placed where possible cargo shift damage might occur. Doors are locked securely by four heavy duty galvanized locking bars.

The special designs and construction needed for rugged piggyback trailers have been applied successfully to thousands of Great Dane trailers in use by railroads. For complete details on the strongest piggyback trailers made, write to Great Dane Trailers, Inc., P. O. Box 1159, Savannah, Georgia 31402.

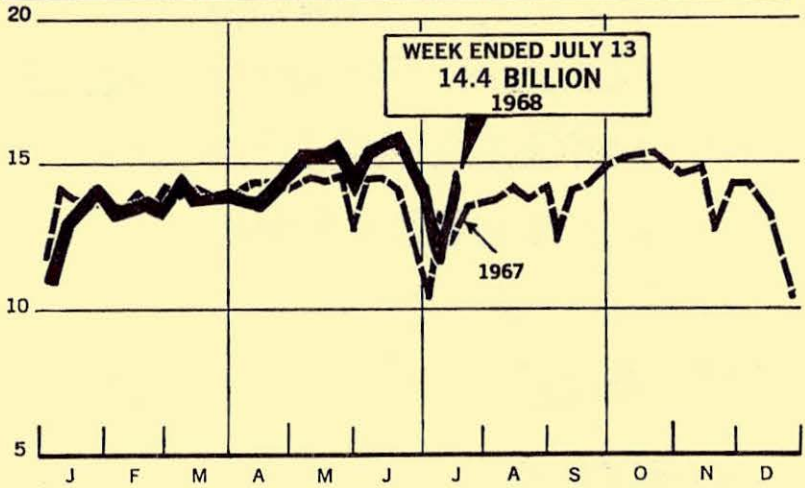
Quality is our product

Great Dane Trailers SAVANNAH, GEORGIA

Circle 29 on coupon page 55

RAIL FREIGHT TRAFFIC TRENDS

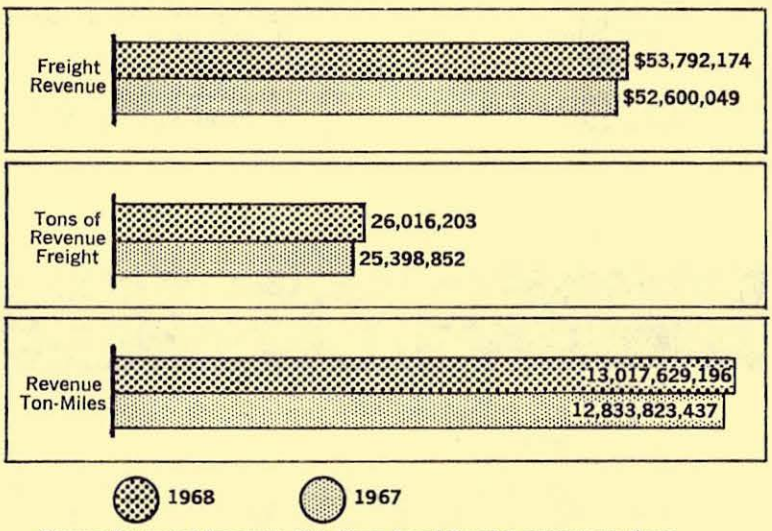
BILLION TON-MILES (Estimated)



Source: Association of American Railroads

CLASS A and B WATER CARRIERS

FIRST QUARTER REVENUE AND TRAFFIC—1968 vs. 1967



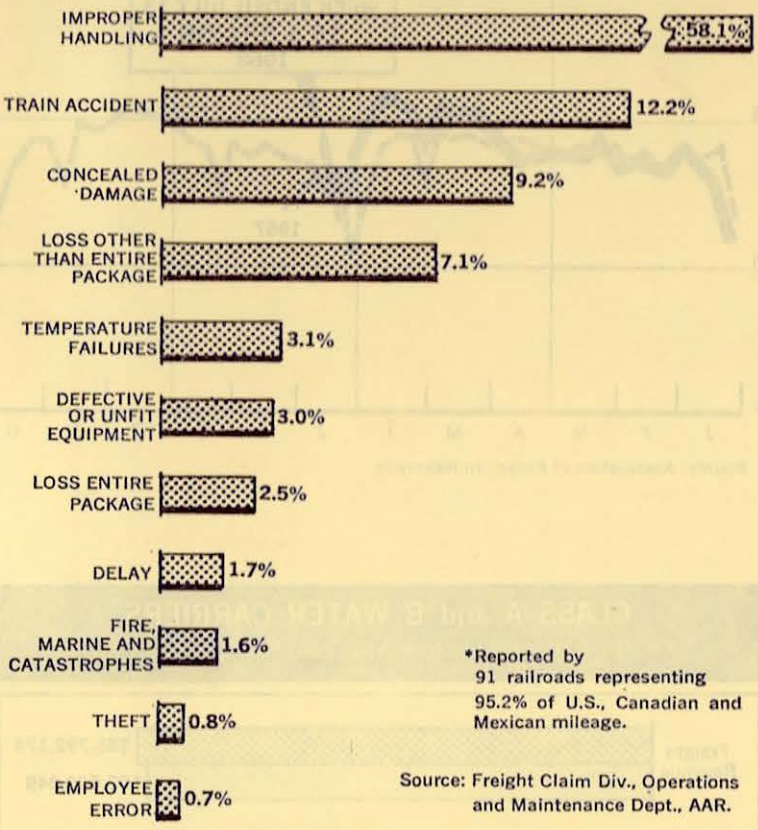
Source: Bureau of Accounts, ICC. Class A and B water carriers are those having, respectively, operating revenues exceeding $500,000 and exceeding $100,000 but less than $500,000.

Current statistics

Carloadings, revenue freight	
29 wks., 1968	15,548,317
29 wks., 1967	15,422,811
New freight cars on order	
July 1, 1968	17,810
July 1, 1967	30,225
New freight cars delivered	
6 mos., 1968	31,355
6 mos., 1967	47,587
Serviceable cars	
June 1, 1968	1,396,119
June 1, 1967	1,419,210

FREIGHT LOSS AND DAMAGE BY PRINCIPAL CAUSE—1967*

TOTAL $175,206,556

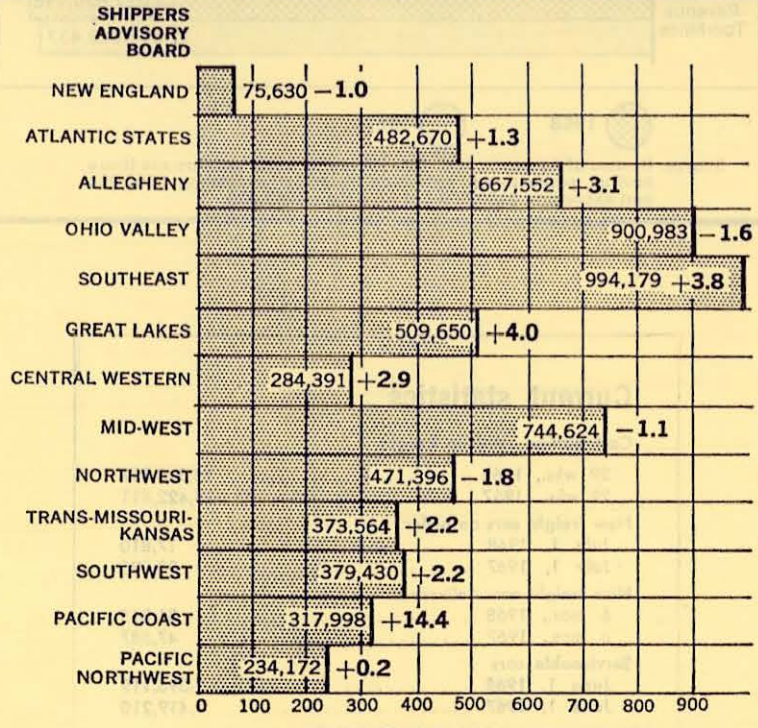


*Reported by 91 railroads representing 95.2% of U.S., Canadian and Mexican mileage.

Source: Freight Claim Div., Operations and Maintenance Dept., AAR.

ESTIMATED CARLOADINGS THIRD QUARTER 1968*

Compared with actual loadings, third quarter 1967



MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended July 20 totaled 565,016 cars, the Association of American Railroads announced on July 25. This was an increase of 15,484 cars, or 2.8%, compared with the previous week; an increase of 80,468 cars, or 16.6%, compared with the corresponding week last year; and a decrease of 7,519 cars, or 1.3%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended July 20 are estimated at 14.7 billion, an increase of 21.6% over the corresponding week of 1967, and 4.8% above the 1966 week.

REVENUE FREIGHT CARLOADINGS

For the week ended Saturday, July 20

District	1968	1967	1966
Eastern, including Allegheny and Pocahontas ..	213,275	186,482	219,169
Southern	121,369	102,174	110,454
Total Eastern and Southern Districts	334,644	288,656	329,623
Northwestern .	79,549	71,109	90,208
Central Western	112,429	89,762	113,961
Southwestern .	38,394	35,021	38,743
Total Western Districts	230,372	195,892	242,912
Total All Roads	565,016	484,548	572,535
Commodities:			
Grain and Grain Products	43,787	47,468	63,992
Livestock	904	774	1,252
Coal	105,024	99,925	102,623
Coke	7,845	5,929	8,325
Forest Products	43,846	38,021	39,749
Ore	54,316	44,163	54,815
Merchandise l.c.l.	3,398	3,691	5,973
Miscellaneous .	365,896	244,577	295,806
July 20	565,016	484,548	572,535
July 13	549,532	530,110	565,660
July 6	443,377	405,594	445,102
June 29	539,144	505,672	554,203
June 22	598,149	565,429	616,448
Cumulative total, 29 weeks ...	15,548,317	15,422,811	16,201,428
Estimated revenue ton-miles (billions) 29 weeks ...	416.9	397.0	406.9

FREIGHT TRAIN CARS

• *Rock Island.*—Acquired 50 70-ton and 35 100-ton Airslide covered hopper cars from General American and 109 bi- and tri-level auto-racks from Whitehead & Kales. Covered hopper cars are equipped with roller bearing trucks and plastic interior linings. The 70-ton cars will be used for flour loading. The 100-ton cars are for sugar loading.

• *Car Orders.*—Orders were placed in June for 3,237 new freight cars, compared with 4,057 in May, and 7,294 in June 1967, according to the American Railway Car Institute and the AAR. The continuing effects of financial stringency on railroad capital spending were again reflected in a drop in the backlog of new and rebuilt cars on order and undelivered. As of July 1, only 23,917 new and rebuilt cars were on order, compared with 25,555 last month, and 42,788 on July 1, 1967. Railroad shops received orders for 36 new cars in June, compared with 1,371 in May, and 537 in June last year. Contract car builders got orders for 3,201 new cars in June, up from 2,686 in May. In June last year car builders got orders for 6,757 cars.

FREIGHT TRAIN CARS DELIVERED AND ORDERED IN JUNE AND BACKLOG OF ORDERS ON JULY 1—ALL RAILROADS AND PRIVATE CAR LINES

Delivered

	June 1968	May 1968	June 1967
Built new by car builders	2,728	2,906	7,049
Built new in R.R. shops	1,680	2,088	1,409
Built new—total	4,408	4,994	8,458
Rebuilt	1,192	1,102	1,706
TOTAL DELIVERED	5,600	6,096	10,164

Ordered

To be built new by car builders	3,201	2,686	6,757
To be built new in R.R. shops	36	1,371	537
To be built new—total	3,237	4,057	7,294
To be rebuilt	1,025	575	3,650
TOTAL ORDERED	4,262	4,632	10,944

On Order And Undelivered

	July 1, 1968	June 1, 1968	July 1, 1967
To be built new by car builders	10,969	10,496	22,977
To be built new in R.R. shops	6,841	8,785	7,248
To be built new—total	17,810	19,281	30,225
To be rebuilt	6,107	6,274	12,563
TOTAL ON ORDER	23,917	25,555	42,788

LOCOMOTIVES

• *Rock Island.*—Has taken delivery of 10 3,300-hp U33B diesel-electric units from General Electric.

NEW FACILITIES

• *Norfolk & Western.*—Has placed in service on the western division five hotbox detector systems supplied by Railtron Corp.

• *Penn Central.*—Placed an order with the Signal & Communications Division of WABCO for VELAC Speed Control Equipment to control 14 retarders at its eastbound Conway (Pa.) yard.

YOU OUGHT TO KNOW

Roadblock for Asia-Europe "land bridge"?

The use of Russian railways as a "land bridge" between Western Europe and the Orient has been successfully tested, but there could be trouble ahead. In the test shipment, 35 containers traveled from Switzerland to Japan. Much of the 23-day, 8,281-mile journey was over the Trans-Siberian. But press reports from Switzerland now say that prospects of a two-way haul are threatened by Japanese insistence that goods sent to Europe in return must move in container ships. The high rates charged by Soviet railways would make a back-haul of empties uneconomical. One proposed solution: disposable containers.

Penn Central cuts number of interline Pullmans

Penn Central has taken over the complete operation and maintenance of 90 Pullman cars, but 41 cars maintained by the Pullman Co. remain in interline service, a spokesman said last week. The change was effective July 1. These cars are in addition to those which the former New York Central has for several years maintained and operated. PC's spokesman called "unfounded" a report that Penn Central planned to stop all interlining of Pullman cars.

BLF&E re-elects Gilbert by acclamation

H. E. Gilbert, president of the Brotherhood of Locomotive Firemen & Enginemen since 1953, has been elected to another term by acclamation. Four other top international officers were also unanimously re-elected at the union's convention in Houston—M. W. Hampton, assistant president; R. R. Bryant, secretary and treasurer; W. C. Midcap, editor and manager of publications; and A. M. Lampley, vice president and national legislative representative.

Candidates sought for Seley Awards in transportation

Nominations have been invited for the 1968 TAA-Seley Transportation Awards, which will carry a gold medallion for the recipient plus a $5,000 scholarship grant to the university of his choice. The award goes annually to an individual who "has made an important contribution toward the development and maintenance of a privately owned and operated national transportation system." The presentation will be made by the Transportation Association of America at its annual National Transportation Institute to be held in Chicago Jan. 14-15, 1969. The awards are given on behalf of the Seley Foundation, Inc. Nominations should go to the TAA at 1101 17th St., N. W., Washington, D. C. 20036.

N&W president named recipient of Jefferson Award

Herman H. Pevler, president of the Norfolk & Western, is the 1968 winner of the Thomas Jefferson Award for Public Service, presented annually by the Old Dominion Chapter, Public Relations Society of America, to "an individual or individuals who, beyond the call of duty, have given effectively of themselves to improve the life of the community or Commonwealth." Pevler, seventh recipient of the honor, will receive the award at a Sept. 13 dinner in Roanoke, Va. Among previous winners were the Governors of Virginia and Arkansas.

For old "999," roses for an anniversary

Seventy-five years ago, New York Central 4-4-0 No. 999 became a world-record holder, reaching 112.5 mph with the "Empire State Express" between Rochester and Buffalo. The 999—built in 1893 at a cost of $13,000—is now at Chicago's Museum of Science and Industry. This month, Museum President D. M. MacMaster and Penn Central Vice President and General Manager Howard Kohout commemorated the high-speed run in true Kentucky Derby fashion—hanging a blanket of roses around 999's stack. As Museum people put it, since the locomotive was given to MS&I in 1962, "it has been inspected, photographed and generally fawned-on by more than three million railfans and other enthusiastic visitors."

PEOPLE IN THE NEWS

FRISCO.—J. H. Brown, general manager, appointed assistant vice president-general manager, with headquarters continuing in Springfield, Mo.

V. J. Deckard, general superintendent transportation, named chief transportation officer. **L. A. Thomas,** assistant general manager-staff, becomes assistant chief transportation officer-staff. **T. M. Galloway,** superintendent transportation, succeeds Mr. Deckard, and in turn is succeeded by **F. E. Wait,** assistant superintendent transportation. All will have headquarters in Springfield.

LOUISVILLE & NASHVILLE.—R. H. Daugherty, district claims agent, Louisville, named general claims agent.

I. W. Bell, assistant superintendent, Mobile, Ala., appointed assistant to chief transportation officer, Louisville. **C. W. Ashby, Jr.,** assistant superintendent, Latonia, Ky., succeeds Mr. Bell, and in turn is succeeded by **G. H. Moore, Jr.,** trainmaster, Chattanooga, Tenn. Mr. Moore's successor is **M. Y. Davenport,** terminal trainmaster, Chattanooga-Wauhatchie Terminals, who in turn is replaced by **C. F. Tyrell,** who returns to the **L&N** from the **Alton & Southern,** East St. Louis, Ill.

Robert J. Money, assistant to general freight agent, named assistant general freight agent-rates and charges, Louisville, to succeed **J. S. Gaines,** who retired June 30 after more than 45 years of service.

Jack M. Vawter named senior industrial engineer, Louisville.

MILITARY TRAFFIC MANAGEMENT & TERMINAL SERVICE.—Lieut. Col. Thomas G. Haake, USA, has been named liaison officer, European Command, Stuttgart, Germany. He was formerly Commanding Officer, U.S. Army Transportation Terminal Unit, Bermuda.

MILWAUKEE.—John W. Webner, sales representative, Cleveland, named district representative, rail-highway sales, Seattle.

Leo F. Walsh, district manager-sales, Great Falls, Mont., retired June 30 after 26 years of service.

Robert D. LaHatt, perishable freight agent, Chicago, named manager of forest products sales there.

MISSOURI PACIFIC.—W. Crimm named superintendent, and **L. L. Carmichael,** assistant superintendent, St. Louis Terminal division, with headquarters at St. Louis and Dupo, Ill., respectively.

MISSOURI PACIFIC—TEXAS & PACIFIC.—William S. Murray, traffic representative, Philadelphia, promoted to general agent, Buffalo, N.Y., succeeding **Arthur R. Copeland,** retired after 39 years with these lines.

William S. Murray, traffic representative, Philadelphia, named general agent, Buffalo, N.Y., to succeed **Arthur R. Copeland,** who retired June 30 after 39 years of service.

Raymond A. Martin named traffic manager-containerization to head a newly formed section devoted to container services. Mr. Martin, formerly assistant manager-truck-rail rates and sales, will coordinate the road's container operations and sales efforts as well as supervise research and development of new container markets, including rail-water and rail-air service.

J. H. Brown
Frisco

C. J. Nassimbene
Santa Fe

J. M. Wiseman appointed superintendent of shops, Sedalia, Mo., succeeding **J. S. Simon,** retired.

SANTA FE.—Charles J. Nassimbene appointed president, **Santa Fe Trail Transportation Co.,** and executive assistant-highway motor transport for the railroad. Mr. Nassimbene was formerly vice president, **DC International Truck Lines,** Denver.

OBITUARY

Frank Sheppard Robbins, 87, who retired in 1945 as general superintendent motive power, **Atlantic Coast Line** (now Seaboard Coast Line), died May 12 at Fort Myers, Fla.

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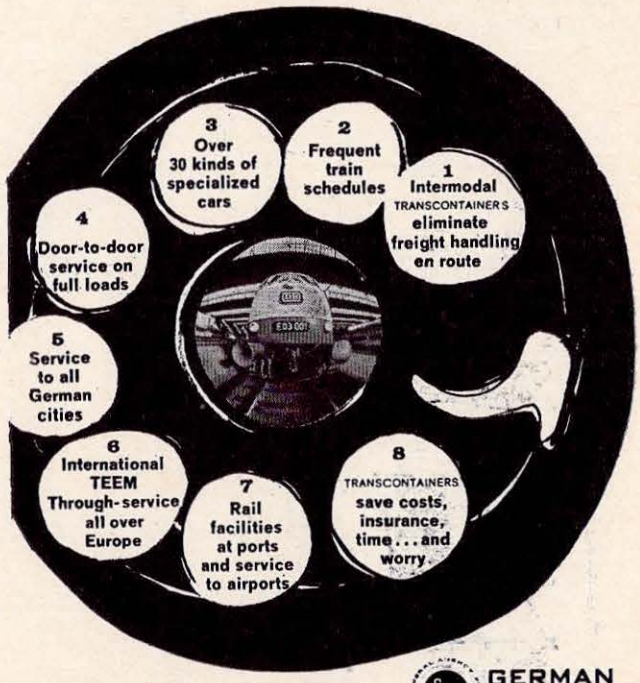
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INDUSTRIAL TRAFFIC

Robert J. Sullivan, assistant manager of west coast traffic, **Shell Oil** and **Shell Chemical Companies,** has been named traffic manager, west coast, succeeding **Edward J. Dunne,** who retired July 1, after 41 years with the company. Mr. Sullivan had 13 years of military and railroad experience (Lehigh Valley) before joining Shell 21 years ago.

Richard L. Hiatt has been appointed corporate traffic manager, **Detroit Steel Corp.,** Portsmouth, Ohio, a new position. He will continue also as traffic manager, Portsmouth Division plant.

Effective July 15, the Corporate Traffic Department of **Riegel Paper Corp.** will be located at executive headquarters at 260 Madison Ave., New York. Divisional traffic departments continue at Milford, N.J.; Riegelwood, N.C., and Chamblee, Ga.

William L. Hammond, assistant manager of transportation and terminals, **PPG Industries,** Pittsburgh, has been appointed manager of transportation facilities, traffic and transportation department, succeeding **James Weaver,** retired after 31 years of service.

Lawrence W. Hennessy, plant traffic manager, **Phoenix Steel Corp.,** Claymont, Del., has been appointed director of traffic.

Victor H. de Liniere has joined the Transportation and Distribution departments of **Boise Cascade Corp.** as assistant to the director of transportation and distribution. Mr. de Liniere was formerly director of transportation of R.C. Can Co., now a division of Boise Cascade and he will continue to maintain his office at Hazelwood, Mo.

William J. Renfer has joined the corporate traffic department staff of **Hershey Foods Corp.,** Hershey, Pa., and will be responsible for special services and assignments. He was formerly distribution manager, Caloric Corp., Topton, Pa.

On July 1 a Directorate of Storage and Transportation was established at the **Defense Personnel Support Center, Defense Supply Agency,** Philadelphia. All traffic management elements at the Center were consolidated under the Transportation and Traffic Management Office in the new Directorate.

Jack A. Griffin has been named director of transportation, **Swift Chemical Co.,** Chicago.

Myron Engelsher, traffic manager, **Allied Stores Corp.,** New York, and **Robert E. Vantine,** general traffic manager, **Bloomingdale's,** New York, have been elected chairman and vice chairman, respectively, Traffic Group Board of Directors, **National Retail Merchants Assn.**

SUPPLY TRADE

Gilbert M. Warren has been elected a vice president of **Keystone Railway Equipment Co.**

George J. Boardman has been appointed eastern regional manager, **REALCO,** New York. He will maintain customer relations, including sales, service and industry association activities. Mr. Boardman was formerly REA Express district sales manager, New York.

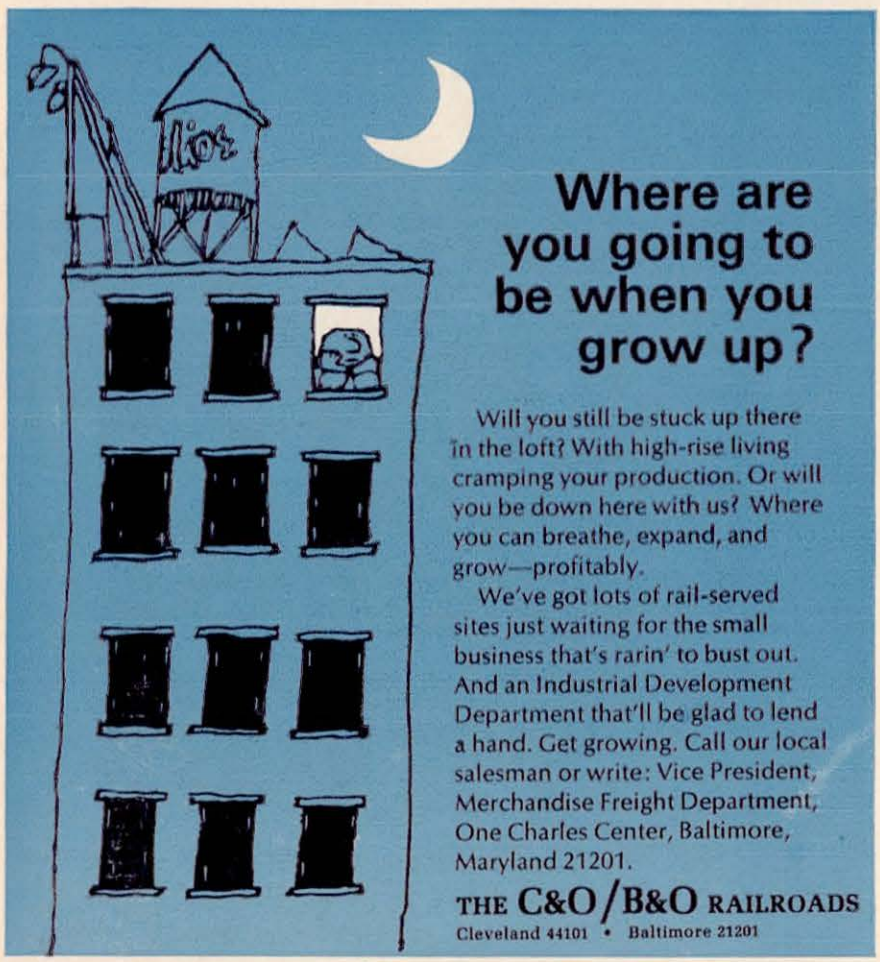
Gilbert M. Warren
Keystone

George J. Boardman
REALCO

Gerald L. Solomonson has been named staff assistant to the vice president-sales, **United States Railway Equipment Co.,** a subsidiary of **Evans Products Co.** Mr. Solomonson, who has been administrative assistant to the director of railcar sales for Evans at Plymouth, Mich., will have headquarters in Chicago.

Harry L. Simmons, senior vice president, **Scullin Steel Co.,** St. Louis, has been named president, to succeed **Thomas W. Pettus,** who resigned July 1. Mr. Pettus will continue to serve the company as a consultant. The title of **A. Jerry Schieler** has been changed from vice president-sales to vice president-marketing.

James H. Shaffer has been appointed to the railroad procurement staff of **L. B. Foster Co.,** Pittsburgh. He was self-employed as a railroad equipment manufacturer's representative for the past eight years.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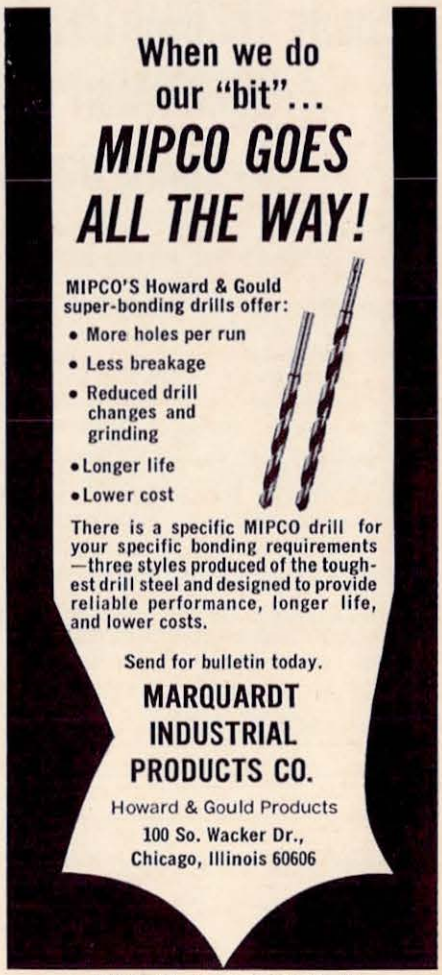
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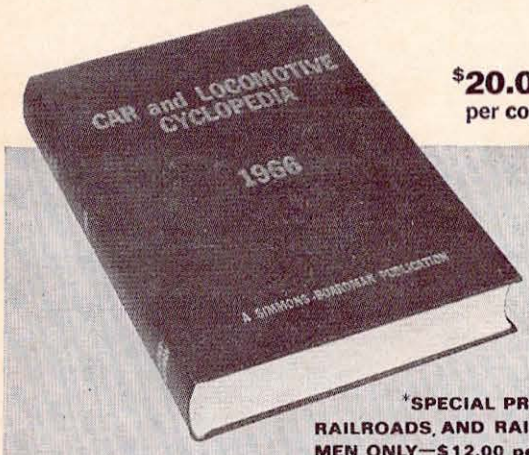

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VIEWPOINT

Better car tracing means better car utilization

With better than 1.8 million freight cars rolling in hotshots or locals or being shunted around yards on seventy-some Class I railroads and hundreds of short lines with total track-mileage of about 350,000, it is not surprising that sometime, somewhere, somehow, a car gets temporarily lost.

The amazing thing is that it happens so infrequently—though it is always hard to convince the customer of this, when it's *his* car with *his* vital shipment that turns up among the momentarily-missing.

In the old days, car-location or car-tracing was a tedious, manual job. It's still manual, in the sense that human beings still man the first line of defense against inaccuracy. But advanced communications networks and the computer—particularly the third-generation computer—are rapidly adding new speed and reliability to the function.

In the 1970s, with ACI in operation, there will be even less of an error-factor to contend with. When TRAIN goes to work, railroads should be able to do still a better job in car-location and, most importantly, in car-utilization. Success will not be automatic, there will be foul-ups, there will be trying moments for both carriers and customers. But the systems appear sound, and men will learn to work with them.

With a little prodding today, transportation and computer people can get into long, involved discussions—philosophical as well as pragmatic—as to who is leading the march toward the ultimate systems, and as to the pros and cons of being out in front. Is a railroad buying present advantage at a cost of future trouble, for example, by forging ahead with its own home-grown programming? Or is a modicum of delay worthwhile if it means that a road can work toward its goals with a major assist from the for-sale programming turned out by the computer industry?

NOT AN EASY JOB—BUT IT'S WORTH DOING

Goals are much less subject to argument than methods, and the fact remains that as-events-happen, continuous-input, continuous-update capability is here, now, for some. Real-time is reality, and operations and customer-service can only be the better for it.

The target could perhaps be set up in a number of ways. J. L. Jones, assistant vice president in Southern's data processing division, Marketing Department, does it well: Most car-reporting systems, he points out, are still highly oriented toward once-a-day or several-times-a-day processing, and "this does not provide good-enough information to run the railroad—or to keep a customer happy for very long. Our entire effort is directed toward having information which helps us operate the railroad properly today—not toward telling us what we did wrong yesterday, or even a few hours ago."

It is not an easy job—and Jones is prone to cite the maxim drawn from the old days in Rome, that "the earliest Christians get the hungriest lions." But he fears not: "Southern is a hungry-lion fighter from 'way back."

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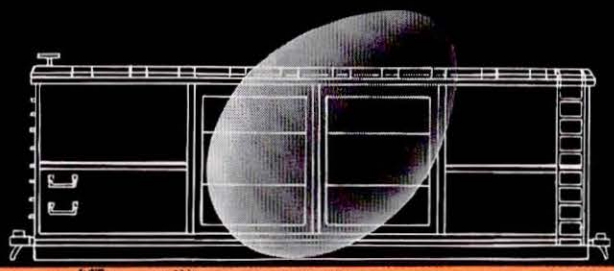

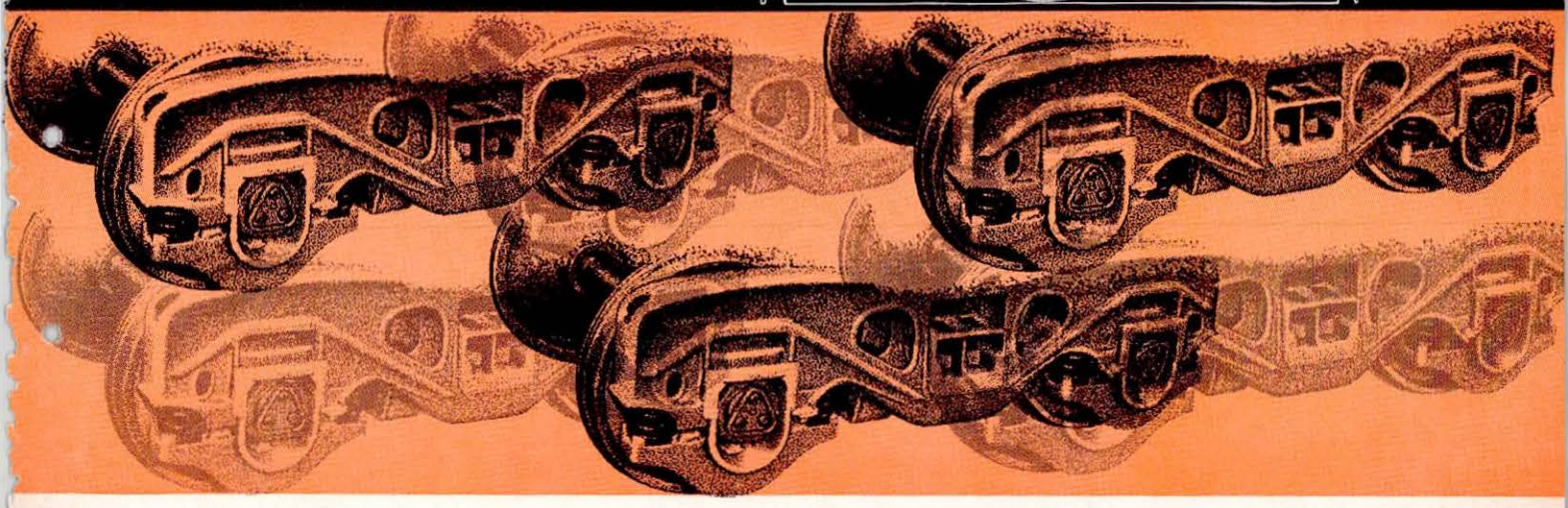

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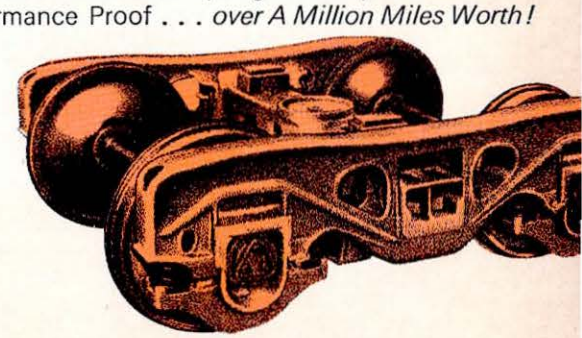

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